| AMENDMENT/MODIFICATION NO. 3. EFFECTIVE DATE 0.1/02/2014 4. REQUISITION/PURCHASE REQ. NO. 5. PROJECT NO. (If applied to 10 1/02/2014 6. ISSUED BY CODE REGION 3 US ENVIRONMENTAL PROTECTION AGENCY 1650 ARCH STREET PHILADELPHIA PA 19103-2029 8. NAME AND ADDRESS OF CONTRACTOR (No., street, counts), State and ZIP Code) HYDROGEOLOGIC INC 11107 SUNSET HILLS ROAD SUITE 400 RESTON VA 20190-5309 The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers 11. THIS THEM DNLY APPLIES TO AMENDMENTS OF SOLICITATIONS The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers 11. THIS THEM DNLY APPLIES TO AMENDMENTS OF SOLICITATIONS THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment, and is received prior to the opening hour and date specified. 12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule 13. THIS THEM ONLY APPLIES TO MODIFICATION OF CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14. CHECK ONE A THIS CHANGE OR DEET SI SUSUED PURSUANT TO: (Specify authority)) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT. CHECK ONE A THIS CHANGE OR DEET SI SUSUED PURSUANT TO: (Specify authority)) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT. | 4 able) | | | | | |
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| REGION 3 US ENVIRONMENTAL PROTECTION AGENCY 1650 ARCH STREET PHILADELPHIA PA 19103-2029 8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, state and ziP Code) WY PROGEOLOGIC INC 11107 SUNSET HILLS ROAD SUITE 400 RESTON VA 20190-5309 CODE 193942604 FACILITY CODE 11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATION | | | | | | |
| REGION 3 US ENVIRONMENTAL PROTECTION AGENCY 1650 ARCH STREET PHILADELPHIA PA 19103-2029 8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) WY BA. AMENDMENT OF SOLICITATION NO. HYDROGEOLOGIC INC 11107 SUNSET HILLS ROAD SUITE 400 RESTON VA 20190-5309 TO B. DATED (SEE ITEM 11) TO B. DATED (SEE ITEM 13) 06/28/2007 10. DATED (SEE ITEM 13) 06/28/2007 11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS The above numbered solicitation is amended as set forth in Item 14. The hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning copies of the amendment, (b) By acknowledging receipt of this amendment price to the form which includes a reference to the solicitation and amendment numbers. FALURE OF YOUR ACKNOWLEDGENENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIVET OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment up desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and made by telegram or letter, provided each telegram or letter makes reference to the solicitation and proper provided each telegram or letter makes reference to the solicitation and proper provided each telegram or letter makes reference to the solicitation and proper provided each telegram or letter makes reference to the solicitation and proper provided each telegram or letter makes reference to the solicitation and proper provided each telegram or letter makes reference to the solicitation and proper provided each telegram or letter makes reference to the solicitation and provided each telegram or letter makes reference to the solicitation and provided each telegram or letter makes reference to the solicitation and provided each telegram or letter makes reference to the solicitation and provided each telegram or letter makes reference to the solicit | | | | | | |
| US ENVIRONMENTAL PROTECTION AGENCY 1650 ARCH STREET PHILADELPHIA PA 19103-2029 8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) HYDROGEOLOGIC INC 11107 SUNSET HILLS ROAD SUITE 400 RESTON VA 20190-5309 CODE 193942604 FACILITY CODE 108. DATED (SEE ITEM 11) The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers Offers must acknowledge receipt of this amendment prior to the hour and date specified for receipt of Offers submitted, or (o) By acknowledging receipt of this amendment and submit in includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATS SPECIFIED MRESULT IN REJECTION OF YOUR OFFER If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and annothment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATS SPECIFIED HELECTION OF YOUR OFFER If by virtue of this amendment, and is received prior to the opening hour and date specified. 2. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule 13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14. CHECK ONE A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT | | | | | | |
| HYDROGEOLOGIC INC 11107 SUNSET HILLS ROAD SUITE 400 RESTON VA 20190-5309 X 10A MODIFICATION OF CONTRACT/ORDER NO. EP-S3-07-05 10B, DATED (SEE ITEM 13) 06/28/2007 11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified for receipt of Offers occupied on the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment, and is received prior to the opening hour and date specified. 12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule 13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14. CHECK ONE A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. | | | | | | |
| PRESTON VA 20190-5309 The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation or and date specified. The ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule 13. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. | | | | | | |
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| Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning | | | | | | |
| ORDER NO. IN ITEM 10A. | | | | | | |
| | | | | | | |
| B THE ADOVE NUMBERED CONTRACTIONED IS MODIFIED TO DELLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office | | | | | | |
| B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b). | | | | | | |
| C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: | | | | | | |
| D. OTHER (Specify type of modification and authority) | | | | | | |
| X B.2, Work Assignments | | | | | | |
| | | | | | | |
| E. IMPORTANT: Contractor Sis not, Sis n | | | | | | |
| DUNS Number: 193942604 | | | | | | |
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| Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect. 15A. NAME AND TITLE OF SIGNER (Type or print) 16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) | | | | | | |
| | 16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) | | | | | |
| Al PInero // // | | | | | | |
| | | | | | | |
| 15B. CONTRACTOR/OFFEROR 15C. DATE SIGNED 16B. UNITIED STATES OF AMERICA 16C. DATE | SIGNED // / | | | | | |
| 15C. DATE SIGNED 16B. UNITIED STATES OF AMERICA 16C. DATE (Signature of person authorized to sign) NSN 7540-01-152-8070 STANDARD FORM 30 (REV. | 114 | | | | | |

| EPA WORK ASSIGNMENT FORM (WAF) FOR RAC | | | | | | | |
|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 1. WORK ASSIGNMENT (WA) INFORMATION | | | | | | | |
| Project Name: Safety Lip | ght | | | WA S3-0705 | | | |
| Date: 12-17-2013 | | | | | | vision No.: 5 (Five) | |
| Date. 12-17-2013 | Contractor | Control No. | | Modifi | (C | 262 Contracting Officer Use Only) | |
| 2. DESCRIPTION OF A | CTION | | | | | | |
| New WA (need WP for the WA) . Attach SOW including schedule . Designate WAM | WA Amendment (need revised WP and/or cost estimate) . Change in LOE or scope by task . Add additional tasks or funds for increased activity | — Partial WP Appr — WP Disapproval — Final WP Appro — Amendment to F WP Approval Approve change ir scope, or budget Approve additiona | val Final LOE, | Technical Dire Memorandum . Details on scope schedule . Minor shift with (no change in \$/i . Change WAMSet or revise ex- limit (EL) | , budget, or in SOW LOE) | Incremental Funding Fund approved WP X WA Closeout Notification Notify contractor to initiate WA closeout task Revise EL after final invoice Other | |
| 3. BUDGET INFORMAT | ΓΙΟΝ | | | | | | |
| Completion WA Term WA Approved Total Funding Received (\$) LOE Term WAs Only | | | | Budget (\$)* | Expen LOE Term WAs o | enditure Limits Not to Be Exceeded (\$)* only | |
| Previous Total | | | | | | | |
| This Action | • | 0 | 0 | | | | |
| New Total | | <u>854</u> <u>158,178</u> <u>85</u> | | | | | |
| Funding Category: <u>Bulk</u> | Funding | * Includes fees | | | * Includes fe | ees | |
| Activity Code: <u>TA</u> S | /SID:03DG | | | | | | |
| 4. WA COMPLETION D | OATE Current: 12- | 31-2013 | Revis | sed: | | | |
| 5. EPA COMMENTS: | | | | | | | |
| C | close Out WA 041 | | | | | | |
| • | | | | | | | |
| 6. APPROVALS | | | | | | | |
| Contractor Signatures: | | | EPA Sig | gnatures: | | | |
| Site Manager/Firm | | Date | /s/ <u>Mito</u> Work A: | ch Cron ssignment Manager | F | 12-17-2013 Date Phone Number () | |
| Program Manager/Firm | | Date | /s/ <u>Frar</u> Environn | nk Cellucci nental Engineer | <u> </u> | 12-17-2013 Date | |
| | pproved With Not hanges Approv | red - | Signat | turg of Contracting C | Officer, | 1/2/14 Date | |

| EPA WORK ASSIGNMENT FORM (WAF) FOR RAC | | | | | | | | |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| 1. WORK ASSIGNMENT (WA) INFORMATION | | | | | | | | |
| Activity: Five Year Revie | ight Systems Division Co w Contractor | EPA Cont | ract No. EF | P-S3-07-05 | Ro | evision No.: 5 (Five) | | |
| 2. DESCRIPTION OF A | CTION | | | | | | | |
| New WA (need WP for the WA) . Attach SOW including schedule . Designate WAM | WA Amendment (need revised WP and/or cost estimate) . Change in LOE or scope by task . Add additional tasks or funds for increased activity | Partial WP Ap WP Disapprov Final WP App Amendment to WP Approval . Approve change scope, or budget . Approve addition | al roval o Final in LOE, | Technical Dir Memorandum Details on scope schedule Minor shift with (no change in \$/ Change WAM Set or revise e limit (EL) | i, budget, or in SOW LOE) | Incremental Funding . Fund approved WP _X_WA Closeout Notification . Notify contractor to initiate WA closeout task . Revise EL after final invoiceOther | | |
| 3. BUDGET INFORMA | LION | · | | | | | | |
| Completion WA _X | ed (\$) 67 0 7 unding | LOE Term WAs Only | Work Plan F (\$)* 35,257 0 35,257 | _ | Expendi L OE Term WAs o | | | |
| 4. WA COMPLETION I | OATE Current: 12- | 31-2013 | _ | Revised: | | | | |
| 5. EPA COMMENTS: Close Out WA 042 | | | | | | | | |
| 6. APPROVALS | | | | ** | · · · · · · · · · · · · · · · · · · · | | | |
| Contractor Signatures: Site Manager/Firm Program Manager/Firm Approved As X Ap | Date Date Date | | Frank Ce Environn | signment Manager sollycci nental Engineer | | 12-17-2013 Date 12-17-2013 Date //2// | | |
| Approved AsX Ap Submitted Char | | | Signature | of Contracting Offic | er | Date | | |

| EPA WORK ASSIGNMENT FORM (WAF) FOR RAC | | | | | | | | | |
|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| 1. WORK ASSIGNMEN | 1. WORK ASSIGNMENT (WA) INFORMATION | | | | | | | | |
| Project Name: Sauer Du | | Contractor: | | | No.: 045 | | | | |
| Activity: Technical A | | | | 705 | | No.: <u>6 (Six)</u> | | | |
| Date: 12-17-2013 | Contractor C | Control No | | | | tion No.: 262 ng Officer Use Only) | | | |
| 2. DESCRIPTION OF A | CTION | | | | | | | | |
| New WA (need WP for the WA) . Attach SOW including schedule . Designate WAM | WA Amendment (need revised WP and/or cost estimate) . Change in LOE or scope by task . Add additional tasks or funds for increased activity | — Partial WP Approval — WP Disapproval — Final WP Approval — Amendment to Final WP Approval Approve change in LOE, scope, or budget Approve additional tasks | | Technical Direction Memorandum . Details on scope, budget, or schedule . Minor shift within SOW (no change in \$/LOE) . Change WAM Set or revise expenditure limit (EL) | | Incremental Funding . Fund approved WP X_ WA Closeout Notification . Notify contractor to initiate WA closeout task . Revise EL after final invoice Other | | | |
| 3. BUDGET INFORMAT | FION | | | | | | | | |
| Completion WA | Term WA | Approved Work Plan Budget | | | Expenditure Limits Not to Be Exceeded | | | | |
| Total Funding Receive | ed (\$) | LOE (\$)* Term WAs Only | | | LOE Term WAs o | . (\$)* only | | | |
| Previous Total8 | 1,500 | <u>906</u> <u>76,911</u> | | | 906 | 76,911 | | | |
| This Action | 0 | | 0 | 0 | 0 | | | | |
| New Total <u>81,500</u> | | | | | 906 * Includes fe | | | | |
| Funding Category: Site | Specific | 1 | nonuces rec | ·s | niciades ie | | | | |
| Activity Code: TA S | /SID: <u>03EW</u> | | | | ! | · · · · · · · · · · · · · · · · · · · | | | |
| 4. WA COMPLETION E | OATE Current: 12-3 | 31-2013 | Revis | sed: | | | | | |
| 5. EPA COMMENTS: | | | | | | | | | |
| | Close Out WA | 045 | | | | | | | |
| | | | | | | | | | |
| 6. APPROVALS | | | | | | | | | |
| Contractor Signatures: | | | EPA Sig | gnatures: | | | | | |
| Site Manager/Firm | | Date | | Tymchenko ssignment Manager | | 12-17-2013 Date | | | |
| Program Manager/Firm | | Date | /s/ <u>Fran</u> Environr | k Cellucci nental Engineer | | 12-17-2013 Date | | | |
| X Approved As A A Submitted Change | pproved With Not es Approved | Signature o | f Contracti | ng Officer | | 1/2/14 Date | | | |

| AMENDMENT | OF SOLICITATION/MODIFIC | ATION OF CONTRACT | | 1. CONTRACT ID CODE | P | AGE OF PAGES |
|------------------------------------------|------------------------------------------------------------------------------|-----------------------------------------|-------------------|----------------------------------------------------------------------|-----------------|---------------------------------|
| 2. AMENDMENT/I | MODIFICATION NO. | 3. EFFECTIVE DATE | 4. REC | QUISITION/PURCHASE REQ. NO. | 5. PRO | 1 2 JECT NO. (If applicable) |
| 0263 | | 01/07/2014 | | | | |
| 6. ISSUED BY | CODE | R3 | 7. AD | MINISTERED BY (If other than Item 6) | CODE | |
| 1650 ARCH | NMENTAL PROTECTION STREET PHIA PA 19103-2029 | AGENCY | | | | |
| 8. NAME AND AD | DRESS OF CONTRACTOR (No., street | county, State and ZIP Code) | (x) ^{9A} | AMENDMENT OF SOLICITATION NO | | |
| HYDROGEOLO | OGIC INC | | (4) | | | |
| | SET HILLS ROAD SUITE 20190-5309 | E 400 | 9В | DATED (SEE ITEM 11) | | |
| | · | | x 10 E | A. MODIFICATION OF CONTRACT/OR P-S3-07-05 | DER NO. | |
| | | | 10 | B. DATED (SEE ITEM 13) | | |
| CODE 1939 | 942604 | FACILITY CODE | | 6/28/2007 | | |
| | nbered solicitation is amended as set fo | 11. THIS ITEM ONLY APPLIE | | | is extended, | is not extended. |
| | D IN ITEM 14. TRACT g office, | | | | | |
| | 07.05.0 /0 - 16.4 | | | | | |
| | OTHER (Specify type of modification 3.2, Work Assignment | • • • • • • • • • • • • • • • • • • • • | | | | |
| | | | | . O copies to the | issuina office. | <u> </u> |
| E. IMPORTANT: 14. DESCRIPTIO DUNS Numb | | is required to sign this docum | | solicitation/contract subject matter when | | |
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| | ed herein, all terms and conditions of th TITLE OF SIGNER (Type or print) | e document referenced in Item 9/ | | retofore changed, remains unchanged a NAME .AND TITLE OF CONTRACTING | | |
| | | | Jol | nn Robb | | |
| 15B. CONTRACT | OR/OFFEROR | 15C. DATE SIGN | | UNITED STATES OF AMERICA | 1 | 16C. DATE SIGNED |
| /0:- | mature of percen authorized to size | | 1-/ | MIMI | -1 | 1.7.1014 |
| NSN 7540-01-152 | gnature of person authorized to sign) 2-8070 | | | (Signature of Contracting Officer | | D FORM 30 (REV. 10-83) |
| Previous edition to | | | (| , | Prescribed | |

| | EPA WORK ASS | SIGNMENT FO | RM (WAF) I | FOR RAC | | | |
|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| 1. WORK ASSIGNMEN | T (WA) INFORMATION | | | | | | |
| Project Name: <u>Chem-Fab</u> | | Contractor: HGL | | WA No.: 052 | RICO 03DR | | |
| Activity: RIFS | | EPA Contract N | lo. <u>EP-S3-07-05</u> | Revi | sion No.: 10 (Ten) | | |
| Date: 01-06-2014 | Contractor | Control No. | | | n No.: 263 ng Officer Use Only) | | |
| 2. DESCRIPTION OF A | CTION | | | | • | | |
| New WA (need WP for the WA) . Attach SOW including schedule . Designate WAM | WA Amendment (need revised WP and/or cost estimate) Change in LOE or scope by task Add additional tasks or funds for increased activity | Partial WP Appro WP Disapproval Final WP Approv Amendment to F WP Approval Approve change in scope, or budget Approve additiona | Me Detai schec val Mino (no cl Final LOE, Set limit (E | or shift within SOW hange in \$/LOE) ge WAM or revise expenditure | Incremental Funding . Fund approved WP WA Closeout Notification . Notify contractor to initiate WA closeout task . Revise EL after final invoiceOther | | |
| 3. BUDGET INFORMAT | ΓΙΟΝ | | | | | | |
| Completion WA _X_ Term WA | | | | | | | |
| | | | | | | | |
| 6. APPROVALS | | | | | | | |
| Contractor Signatures: | | | EPA Signatures: | | | | |
| Site Manager/Firm | Date | · | Huu Ngo Work Assignment | _ | 01-06-2014 Date | | |
| Program Manager/Firm | Date | | Frank James Cellu Environmental En | eci gineer | 01-06-2014 Date | | |
| X Approved As Approved As Char | proved With Not Approved | Signature of Co | Ontracting Officer | | 01-07-2014 Date | | |

| AMENDME | NT OF SOLICITATION/MODIFIC | ATION OF CONTRACT | | 1. CONTRACT ID CODE | | PAGE OF PAGES | | |
|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-------------------------|------------------------------------------------------------------------------------------------------------------|--------------|-----------------------------------------|--|--|
| 2. AMENDME | NT/MODIFICATION NO. | 3. EFFECTIVE DATE | 4. RE | QUISITION/PURCHASE REQ. NO. | 5. Pf | 1 3 ROJECT NO. (If applicable) | | |
| 0264 | | See Block 16C | | | | | | |
| 6. ISSUED BY | CODE | R3 · | 7. A | OMINISTERED BY (If other than Item 6) | COD | DE | | |
| 1650 AR | 3 RONMENTAL, PROTECTION CH STREET LPHIA PA 19103-2029 | AGENCY | | | | | | |
| 8. NAME AND | ADDRESS OF CONTRACTOR (No., street | t, county, State and ZIP Code) | (x) ^g | A. AMENDMENT OF SOLICITATION NO. | | | | |
| 11107 SU | DLOGIC INC UNSET HILLS ROAD SUITI VA 20190-5309 | E 400 | 9B. DATED (SEE ITEM 11) | | | | | |
| | | | x 1 | 0A. MODIFICATION OF CONTRACT/ORDE CP-S3-07-05 | ER NO. | | | |
| | | | _ 1 | OB. DATED (SEE ITEM 13) | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | |
| CODE 19 | 3942604 | FACILITY CODE | | 06/28/2007 | | | | |
| | | 11. THIS ITEM ONLY APPLIES TO | O AMENI | MENTS OF SOLICITATIONS | | | | |
| THE PLACE virtue of this to the solicit | E DESIGNATED FOR THE RECEIPT OF 6 s amendment you desire to change an offe tation and this amendment, and is received FING AND APPROPRIATION DATA (If rec | OFFERS PRIOR TO THE HOUR AND or already submitted, such change may d prior to the opening hour and date sp | DATE S | AILURE OF YOUR ACKNOWLEDGEMENT PECIFIED MAY RESULT IN REJECTION C by telegram or letter, provided each telegram. | F YOUR C | OFFER. If by | | |
| | | ODIFICATION OF CONTRACTS/ORD | ERS. IT | MODIFIES THE CONTRACT/ORDER NO. A | S DESCRIE | BED IN ITEM 14. | | |
| OUTON ONE | | | | | | | | |
| CHECK ONE | A. THIS CHANGE ORDER IS ISSUED F ORDER NO. IN ITEM 10A. | PURSUANT TO: (Specify authority) TI | HE CHAI | NGES SET FORTH IN ITEM 14 ARE MADE | IN THE CO | ONTRACT | | |
| , | B. THE ABOVE NUMBERED CONTRAL appropriation date, etc.) SET FORTE | | | DMINISTRATIVE CHANGES (such as char Y OF FAR 43.103(b). RITY OF: | nges in pay | ving office, | | |
| | | | | | | | | |
| | D. OTHER (Specify type of modification | | | | | | | |
| X | B.2, Work Assignment | S | | | | | | |
| E. IMPORTAN | | is required to sign this document | | | | е. | | |
| | | (Organized by UCF section headings, | including | g solicitation/contract subject matter where t | easible.) | | | |
| DUNS Nur The purp | | tion is to issue Re | visi | on 35 to Work Assignme | ent 00 | 6RICO032C. | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Except as pro- | vided herein, all terms and conditions of th | ne document referenced in Item 9A or | 10A, as h | eretofore changed, remains unchanged and | in full forc | be and effect. | | |
| | ND TITLE OF SIGNER (Type or print) | | | NAME AND TITLE OF CONTRACTING C | | | | |
| | | | Jo | hn Robb | | | | |
| | ACTOR/OFFEROR | 15C. DATE SIGNED | 16E | UNITED STATES OF AMERICA | | 16C. DATE SIGNED | | |
| | (Signature of person authorized to sign) | | | (\$ignature of Contracting Officer) | CTALIC | ARD FORM 20 (DEV. 40.20) | | |
| NSN 7540-01- Previous edition | | | | | | ARD FORM 30 (REV. 10-83) ped by GSA | | |

Prescribed by GSA FAR (48 CFR) 53.243

| | EPA WORK A | SSIGNMEN | T FO | RM (WAF |) FOR I | RAC |
|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. WORK ASSIGNMEN | | , | | | | |
| | Ceramics, Inc. EPA Contract No. | | | Revision No. | Modificatio | nirty FIVE) |
| 2. DESCRIPTION OF A | CTION | | | | | ormating officer ode only? |
| New WA (need WP for the WA) . Attach SOW including schedule . Designate WAM | WA Amendment (need revised WP and/or cost estimate) . Change in LOE or scope by task . Add additional tasks or funds for increased activity | Partial WP Ap WP Disapprov Final WP App Amendment to WP Approval Approve change is scope, or budget Approve additiona | val proval o Final n LOE, | X Technical Memorandu Details on scop or schedule Minor shift with (no change in S Change WAM Set or revise expenditure limit | m e, budget, in SOW \$/LOE) | Incremental Funding . Fund approved WP WA Closeout Notification . Notify contractor to initiate WA closeout task . Revise EL after final invoice Other |
| 3. BUDGET INFORMAT | 1 | | | | | |
| | | Approved W LOE Term W 16,239 0 16,239 * Includes fees | 'As Only | 2,812,971 0 2,812,971 | LOE 15,682 40 | 4,000 2,585,340 * |
| 4. WA COMPLETION D. | ATE Current: (| 06-30-2015 | | Revised: | | |
| | | | | | | timate for the DPT source work - See Attachment. |
| Contractor Signatures: | | | Rashmi I | Mathur signment Manager | | 01-30-2014 Date |
| Site Manager/Firm | | Date | Frank Ja | mes Cellucci nental Engineer | *************************************** | 01-30-2014 Date |
| Program Manager/Firm | | Date | | | | |
| Approved As X Ap Submitted Cha | pproved WithNot inges Approved | | Signature | of Contracting Office | M. | 0 (~ 30 ~ 70 (Y |

Attachment

HGL WA #006RICO032C - Revision 35

Work previously alloted in SOW is as follows:

- a. Development of these WP/CE
- b. Subcontractor management
- c. PM hours
- d. Mobilization = this is pre-sample point locating and utility clearance;
- e. Trip Report submittal 1 trip report submitted via email
- f. One (1) ten (10) -day field event previously described: HGL PM for 3 days oversee RR work)
- i. Complete remaining boring at First Street, install pre-pack well, collect 5 soil samples from the boring and one gw sample. Analyze the soil samples for TCL VOCs, TCL SVOCs, TCL pest/PCBs, TAL Metals including tin, mercury, and cyanide, TOC, and soil pH and the GW sample for TCL VOCs, TCL SVOCs, TCL pest/PCBs, TAL Metals including tin, mercury, and cyanide, and TOC. Estimated borehole depth = 30 feet
 - ii. Complete 4 soil borings at Former Lagoon, each to 12 feet bgs; Collect soil samples for TCL
 SVOCs, TCL PCBs, and TAL Metals include tin, mercury, and cyanide;
 - iii. Complete 3 soil borings at Former Manufacturing Area, Northern Drainage Channel, to 8 feet bgs and analyze soil samples for TCL VOCs, TCL SVOCs, TCL pest/PCBs, TAL Metals including tin, mercury, and cyanide, TOC, and soil pH
 - iv. Complete the remaining 13 soil borings in the vicinity of the VOC plume as formerly directed with two borings located between the railroad tracks. Addition, costs for 2 people for 4 hours each plus cost to take the course to obtain RR certification.
- g. Frac Tank Rental
- h. Coordination and working with OSAQA/SMO
- i. Review Field Data/Validation Reports/enter data to spreadsheet and report

| AMENDMENT OF SOLICITATION/ | MODIFIC | ATION OF CONTRACT | | CONTRACT ID CODE | | PAGE OF PAGES | |
|-------------------------------------------------------------------------------------|-------------------------------|---------------------------------------------------------------------------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------------------------------------|----|
| 2. AMENDMENT/MODIFICATION NO. | | 3. EFFECTIVE DATE | 4. R | LEQUISITION/PURCHASE REQ. NO. | 5. PR | 1 4 ROJECT NO. (If applicable) | |
| 265 | | See Block 16C | | | | | |
| ISSUED BY | CODE | R3 | 7.7 | ADMINISTERED BY (If other than Item 6) | CODE | E | |
| EGION 3 S ENVIRONMENTAL PROTE 650 ARCH STREET HILADELPHIA PA 19103- | | AGENCY | | | | , | |
| NAME AND ADDRESS OF CONTRACTO | R (No., street | , county, State and ZIP Code) | (x) | 9A. AMENDMENT OF SOLICITATION NO. | | | |
| DROGEOLOGIC INC | | • | | | | | |
| 11107 SUNSET HILLS ROAD SUITE 400 RESTON VA 20190-5309 | | | | 9B. DATED (SEE ITEM 11) | | | |
| | | | х | 10A. MODIFICATION OF CONTRACT/ORDE EP-S3-07-05 | R NO. | | |
| | | | | 10B. DATED (SEE ITEM 13) | | | |
| DDE 193942604 | | FACILITY CODE | - | 06/28/2007 | | | |
| | | 11. THIS ITEM ONLY APPLIES TO | AMEN | | | - | |
| | inge an offe d is received | r already submitted, such change may I prior to the opening hour and date sp | be ma | SPECIFIED MAY RESULT IN REJECTION OF the specified of the second of the | | | |
| | LIES TO M | ODIFICATION OF CONTRACTS/ORD | ERS. IT | MODIFIES THE CONTRACT/ORDER NO. AS | DESCRIB | BED IN ITEM 14. | |
| A. THIS CHANGE ORDER IS ORDER NO. IN ITEM 10A | S ISSUED F | PURSUANT TO: (Specify authority) TI | HE CHA | ANGES SET FORTH IN ITEM 14 ARE MADE I | IN THE CO | ONTRACT | |
| B. THE ABOVE NUMBERED appropriation date, etc.) | CONTRAC | CT/ORDER IS MODIFIED TO REFLEC IN ITEM 14, PURSUANT TO THE AI | T THE | ADMINISTRATIVE CHANGES (such as changity OF FAR 43.103(b). | ges in payi | ring office, | |
| C. THIS SUPPLEMENTAL A | GREEMEN | T IS ENTERED INTO PURSUANT TO | AUTH | ORITY OF: | | | |
| D. OTHER (Specify type of re | nodification | and authority) | | | | | |
| X B.2, Work Assi | gnment | S | | | | | |
| | ∑is not, | is required to sign this document | and retu | urn 0 copies to the iss | suina office | | |
| | | | | ng solicitation/contract subject matter where fe | | | |
| JNS Number: 193942604 | 1 | | | | | | |
| e purpose of this Moo | lifica | tion is to issue th | e Re | vision 36 to Work Assi | gnment | t 006RIC0032C. | |
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| and a mandad base to the | -1141 5 · · | and a comment of the second | 404 | hoodstoo decread as 1 1 2 2 2 2 | | d -#f1 | |
| ccept as provided herein, all terms and con A. NAME AND TITLE OF SIGNER (Type of | | e document referenced in Item 9A or | | heretofore changed, remains unchanged and A. NAME AND TITLE OF CONTRACTING O | | | |
| A. HAME AND THEE OF SIGNER (TYPE | л <i>рик</i>) , | | A | $\sim 10^{\circ}$ | TFIVEK (| тур о 01 ринц ₁ | |
| 5B. CONTRACTOR/OFFEROR | | 15C. DATE SIGNED | 16 | BUNITED STATES OF AMERICA | | 16C. DATE SIGNE | :D |
| (Signature of person authorized to | sign) | | - | (Signature of Contracting Officer) | | - 14611 | +. |
| SN 7540-01-152-8070 | | | | / V / I | | ARD FORM 30 (REV. 10-83) |) |
| vious edition unusable | | | | P P P | rrescrib | ed by GSA | |

√ Page 1 of 4

FAR (48 CFR) 53.243

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| | EPA WORK A | ASSIGNMEN | T FO | RM (WAF) | FOR F | RAC | |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------------|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|--|
| 1. WORK ASSIGNMENT | (WA) INFORMATION | | | | | | |
| Project Name: <u>Jackson</u> | Ceramics, Inc. | Contractor: H | GL | | WA No.: | 006RIC0032C | |
| Activity: RI/FS | EPA Contract No | . <u>EPS30705</u> | | Revision No.: | 36 (Th | irty Six) | |
| Date: 02-05-2014 | | Contractor | Control N | No | Modification | n No.: | |
| | | | | | (Cd | ontracting Officer Use Only) | |
| 2. DESCRIPTION OF A | CTION | | | | | | |
| _ New WA | WA Amendment | Partial WP Ap | oproval | X Technical | irection Incremental Funding | | |
| (need WP for the WA) | (need revised WP and/or | 1 — | | Memorandu | m | . Fund approved WP | |
| . Attach SOW | cost estimate) | Final WP App | oroval | . Details on scop | e, budget, | WA Closeout Notification | |
| including schedule | . Change in LOE or | Amendment to | o Final | or schedule | | . Notify contractor to initiate | |
| . Designate WAM | scope by task | WP Approval | | . Minor shift withi | n SOW | WA closeout task | |
| | . Add additional tasks or | . Approve change i | n LOE, | (no change in \$ | /LOE) | . Revise EL after final invoice | |
| | funds for increased | scope, or budget | | . Change WAM | | Other | |
| | activity | . Approve additiona | al tasks | X Set or revi | | | |
| | | | | expenditure limit | (EL) | | |
| 3. BUDGET INFORMAT | ION | · · · · · · · · · · · · · · · · · · · | | | | | |
| Completion WA | _XTerm WA | Approved V | Vork Plan | Budget | Expenditu | ure Limits Not to Be Exceeded | |
| Total F | unding Received (\$) | LOE . | | (\$)* | LOE | (\$)* | |
| Previous Total | | | /As Only | | | Term WAs only | |
| This Action | | 16,239 | | 2,812,971 | 15,722 | <u>2,585,340</u> | |
| New Total | The state of the s | 0_ | | 0 | 510 | 103,318 | |
| - " | | 16,239 | - | 2,812,971 | 16,232 | 2,688,658 | |
| Funding Category: Bu | | * Includes fees | | | | * | |
| Activity Code: RICO | S/SID: <u>032C</u> | | | | Includes fee | s | |
| | | | | | | | |
| 4. WA COMPLETION D | ATE Current: | 06-30-2015 | | Revised: | | | |
| 5. EPA COMMENTS: | Do not provide a cos | t estimate as stated | d in WA | F no. 35. | | | |
| | | | | | the site ar | nd resume field activities | |
| | work - See Attachme | | **** | or modification to | the one an | ia resume neia activities | |
| | | | | | 2.5 | | |
| | provided under WAF | • • • | | | / 36. | | |
| 550 - 40 = 510 LC | DE \$1 | 07,318 - \$4,000 = | = \$103,3 | 318 | | , | |
| | | • | | • | | | |
| | | | | | | | |
| 6. APPROVALS | | | | | | · | |
| 0 | | | l | | | | |
| Contractor Signatures: | | | | Mathur | | 02-05-2014 | |
| Site Manager/Firm | | | | ssignment Manager | | Date 02-05-2014 | |
| Site Manager/ Film | | Date | | ames Cellucci | | | |
| Program Manager/Firm | | Date | Environ | mental Engineer | | Date . | |
| | | Jac | | 11 11 | and the same of th | 1/ | |
| Approved As X A | paraved With Not | | _/ <i>A</i> | M | * | 2/1/14 | |
| | anges Approved | | Simpatur | e of Contracting Office | ner . | Date | |
| | | | - Gigiratul t | J. Contracting Office | | Date | |

Attachment

HGL WA #006RICO032C - Revision 36

Work previously allotted in SOW is as follows:

LOE = 550 and Dollars = \$107,318

Item 2 (Field Investigation Rpt) - LOE = 3.5 hrs, Cost \$508.45
 submit trip report via email summarizing actions completed
 at end of the event,

Item 3 (Former Lagoon Investigation), Item 5, Item 6 all
combined under Item 3 - LOE = 394.00 hours, Cost = \$ 80,478.39
 Hours are based on:

- 2 Days for pre-sample point locating and oversight of utility clearances;
- F2L preparation

event

Exemption (b) (4)

• Exemption (b) (4) who will be onsite already for GW sampling

5

• Exemption (b) (4) completed between RR tracks.

to oversee soil borings being

Tasks:

- 1. Former lagoon Complete 4 soil borings to 12 feet bgs per original SOW of work, collect and submit soil samples per SOW
- First Street Site complete 1 soil boring to bedrock, estimated at 20 feet bgs and install temporary pre-pack monitoring well. Collect and analyze soil and groundwater per original SOW
- Former Manufacturing Area Complete remaining 2 DPT borings between RR tracks; complete all 4 borings within woods bordering RR tracks; Complete remaining 7 borings per original SOW. Collect and analyze all soil and groundwater samples per original SOW.
- 4. Northern Drainage channel complete 3 soil borings to 8 feet. Collect and analyze soil samples per original SOW.
- 5. Exemption (b) (4) to obtain RR training (4 hours per person) and receive certifications (\$35/certification/person).

Item 4 (WP/CE Addendum - LOE = 8 hrs; Costs = \$1,130.28
 this would be WP/CE Addendum 7 if formal submission needed)

Exemption (b) (4)

Item 5 (First Street Investigation) - included under Item 3

Item 6 (Former Manufacturing Area) - included under Item 3

Item 7 (OU2 Bedrock Well Installation) LOE= 0.00;
Costs = \$9,282.00

No Labor involved; frac tank rental costs for 6 months

Item 9 (RAS/DAS Request and OSAQA Interaction) - LOE= 20.00;
Costs = \$2,825.71

Submit RAS/DAS requests, interact with SMO and ESAT prior to, during, and after field event

Item 10 (Analytical Data Management) - LOE= 97.0;
Costs = \$10,240.50

Review Data Validation Reports to determine if data is usable; upload electronic analytical data to project database

Item 13 (Subcontract Procurement and Management) - LOE= 27.00;
Costs = \$2,852.66
 subcontractor management

LOE = 550 and Dollars = \$107,318

| AMENDME | ENT OF SOLICITATION/MODIF | ICATION OF CONTRACT | | 1. CONTRACT II | D CODE . | PAGE OF PAGES |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|--------------------|-----------------------------------------|-----------------------------|------------------------------------------|
| 2. AMENDME | NT/MODIFICATION NO. | 3. EFFECTIVE DATE | 4. R | EQUISITION/PURCH | ASE REQ. NO. | 5. PROJECT NO. (If applicable) |
| 0266 | | See Block 16C | | | | · |
| 6. ISSUED BY | Y COL | | 7. A | OMINISTERED BY (I | f other than Item 6) | CODE |
| 1650 AR | 3 RONMENTAL PROTECTION CH STREET LPHIA PA 19103-2029 | N AGENCY | | | | 1 |
| 8. NAME AND | ADDRESS OF CONTRACTOR (No., st | reet, county, State and ZIP Code) | (x) | 9A. AMENDMENT OF | SOLICITATION NO. | |
| HYDROGE | OLOGIC INC | | | | | |
| | JNSET HILLS ROAD SUI | TE 400 | | 9B. DATED (SEE ITE | M 11) | |
| RESTON V | VA 20190-5309 | | | | | |
| | | | х | 10A. MODIFICATION EP-S3-07-05 | OF CONTRACT/ORDER | R NO. |
| • | | | | 10B. DATED (SEE ITI | EM 13) | |
| CODE 19 | 93942604 | FACILITY CODE | | 06/28/2007 | | |
| | | 11. THIS ITEM ONLY APPLIES | TO AMEN | DMENTS OF SOLICIT | ATIONS | |
| to the solici 12. ACCOUN See Sch | | ved prior to the opening hour and date | specified. | ······································ | | |
| CHECK ONE | A. THIS CHANGE ORDER IS ISSUE ORDER NO. IN ITEM 10A. | D PURSUANT TO: (Specify authority) | THE CHA | NGES SET FORTH II | N ITEM 14 ARE MADE IN | NTHE CONTRACT |
| | B. THE ABOVE NUMBERED CONTF appropriation date, etc.) SET FOR | RACT/ORDER IS MODIFIED TO REFL RTH IN ITEM 14, PURSUANT TO THE | ECT THE AUTHORI | ADMINISTRATIVE CI TY OF FAR 43.103(b | HANGES (such as chang). | es in paying office, |
| | C. THIS SUPPLEMENTAL AGREEM | ENT IS ENTERED INTO PURSUANT | TO AUTHO | DRITY OF: | | |
| | D. OTHER (Specify type of modificati | ion and authority) | | | | |
| Х | B.2, Work Assignmen | nts | | | | · |
| E. IMPORTAN | T: Contractor X is not. | is required to sign this docume | nt and retu | rn | 0 copies to the issu | uing office. |
| DUNS Nur | TION OF AMENDMENT/MODIFICATION TO THE TRANSPORT OF THE TR | | | • | • | , |
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| | | | | | | |
| | vided herein, all terms and conditions o | f the document referenced in Item 9A o | | | | |
| 15A. NAME A | ND TITLE OF SIGNER (Type or print) | | | / // | OF CONTRACTING OF | FICER (Type or print) |
| 15B. CONTRA | ACTOR/OFFEROR | 15C. DATE SIGNE | | L Pinerd B. UNITED STATES | DF AMERICA | 16C. DATE SIGNED |
| | (Signature of person authorized to sign) | *************************************** | _ | | re of Contracting Officer) | L 2/20/14 |
| NSN 7540-01- | 152-8070 | l | | (Signatu) | - Community princer) | STANDARD FORM 30 (REV. 10-83) |
| Previous edition | on unusable | | | V | \vee | Prescribed by GSA FAR (48 CFR) 53.243 |

| EPA WORK ASSIGNMENT FORM (WAF) FOR RAC | | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------|
| 1. WORK ASSIGNMENT (WA) INFORMATION | | | | | | | |
| Project Name:Peck Iron : Activity: RIFS 02-18-2014 2. DESCRIPTION OF A | EPA C Contractor Contra | Contractor: <u>HGL.</u> Contract No. <u>EP-S3-0705</u> ol No. | | Revision Modifi | 4RICOA3Z4 n No.:11_(E) cation No26 acting Officer | <u>6</u> | |
| New WA (need WP for the WA) . Attach SOW including schedule . Designate WAM | WA Amendment (need revised WP and/or cost estimate) . Change in LOE or scope by task . Add additional tasks or funds for increased activity | Partial WP Appro WP Disapproval Final WP Approv Amendment to l WP Approval . Approve change in scope, or budget . Approve additional | al Final LOE, | X_ Technical D Memorandum Details on scope, schedule Minor shift withi (no change in \$/I Change WAM X_ Set or revise limit (EL) | , budget, or in SOW LOE) | Incremental I . Fund approved V WA Closeout . Notify contracto closeout task . Revise EL after Other | Notification or to initiate WA |
| 3. BUDGET INFORMAT | FION | | | | | | |
| Completion WA _X Total Funding Receive | | Approved W LOE Term WAs Only | (\$)* LOE | | • | diture Limits Not to | Be Exceeded (\$)* |
| Previous Total This Action New Total Funding Category: Bulk Funding | | 10,070 0 10,070 * Includes fees | 0 0 10,070 1,768,483 | | 7,050 1,250,000 40 4,000 7,090 1,254,000 * Includes fees | | |
| Activity Code: RICO | S/SID: <u>A3Z4</u> | | | | | | |
| 4. WA COMPLETION I | OATE Current: 12-3 | 31-2015 | Revise | ed: | | | |
| This WAF is to expand the project scope and provide additional LOE and Dollars in order to properly address radiation and radioactive materials recently identified at the Peck Iron and Metal site. The contractor shall prepare an addendum to the work plan and a cost estimate to provide necessary services to ensure worker safety and to plan and implement procedures for: collection, scanning, shipment and analysis of environmental samples which may be radioactive; onsite management of debris and environmental media which may be radioactive or contain radioactive materials; and scanning and offsite shipment and disposal of IDW (investigation derived waste) which may contain radioactive materials. | | | | | | | |
| 6. APPROVALS | | | | | | | |
| Contractor Signatures: | | | EPA Sig | gnatures: | • | | |
| Site Manager/Firm Program Manager/Firm | | Date Date | Work A | ora Rossi ssignment Manager nk James Cellucci nmental Engineer | Ī | 02-18-2 Phone Number (|) 014 |
| X Approved As A Submitted Change | approved With Not es Approved | Signature of Con | practing 0 | fficer, | | A) De | /14 Pate |

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| AMENDME | NT OF SOLICITATION/MODIFI | CATION OF C | ONTRACT | | CONTRACT ID CODE | | 1 | F PAGES |
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| 2. AMENDMEI | NT/MODIFICATION NO. | 3. EFFECTIVE | DATE | 4. RI | EQUISITION/PURCHASE REQ. NO. | 5. PF | 1 ROJECT N | 2 D. (If applicable) |
| 0267 | | See Bloo | ck 16C | | | | | |
| 6. ISSUED BY | CODE | R3 | | 7. A | DMINISTERED BY (If other than Item 6) | COD | E | |
| 1650 AR | 3 RONMENTAL PROTECTION CH STREET LPHIA PA 19103-2029 | AGENCY | | | | | | |
| 8. NAME AND | ADDRESS OF CONTRACTOR (No., stre | eet, county, State and | I ZIP Code) | (x) ^S | A. AMENDMENT OF SOLICITATION NO. | | | |
| IVDROGEC | DLOGIC INC | | | | | | | |
| | NSET HILLS ROAD SUI | re 400 | | . | B. DATED (SEE ITEM 11) | | | |
| | 7A 20190-5309 | | | | | | | |
| | | | | | 0A. MODIFICATION OF CONTRACT/OR | DER NO | | |
| | | | | X J | EP-S3-07-05 | SER NO. | | |
| | | | | | | | | |
| | | | | 1 | OB. DATED (SEE ITEM 13) | | | |
| CODE 19 | 3942604 | FACILITY COI | DE | | 06/28/2007 | | | |
| | | 11. THIS IT | EM ONLY APPLIES TO A | MEN | DMENTS OF SOLICITATIONS | | | |
| THE PLACE virtue of this to the solicit | E DESIGNATED FOR THE RECEIPT OF a amendment you desire to change an of action and this amendment, and is receiv FING AND APPROPRIATION DATA (If reduin | F OFFERS PRIOF ffer already submit red prior to the ope required) | R TO THE HOUR AND DA ted, such change may be ening hour and date speci | ATE S e mad ified. | FAILURE OF YOUR ACKNOWLEDGEMEI PECIFIED MAY RESULT IN REJECTION e by telegram or letter, provided each teleg | OF YOUR (| OFFER. If I | oy erence |
| | 13. THIS ITEM ONLY APPLIES TO | MODIFICATION | F CONTRACTS/ORDER | S. IT | MODIFIES THE CONTRACT/ORDER NO. | AS DESCRI | BED IN ITE | Mi 14. |
| CHECK ONE | A. THIS CHANGE ORDER IS ISSUED ORDER NO. IN ITEM 10A. | PURSUANT TO: | (Specify authority) THE | CHA | NGES SET FORTH IN ITEM 14 ARE MAD | E IN THE C | ONTRACT | |
| | B. THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR | ACT/ORDER IS M TH IN ITEM 14, P | IODIFIED TO REFLECT URSUANT TO THE AUTI | THE . HORI | ADMINISTRATIVE CHANGES (such as ch TY OF FAR 43.103(b). | anges in pa | ing office, | |
| | C. THIS SUPPLEMENTAL AGREEME | NT IS ENTERED | INTO PURSUANT TO A | UTHO | PRITY OF: | | | |
| | D. OTHER (Specify type of modification | on and authority) | | | | | | |
| х | B.2, Work Assignmen | nts | | | | | | |
| E. IMPORTAN | | | to sign this document and | d retu | rn 0 copies to the | issuing offic | e. | |
| 14. DESCRIP | TION OF AMENDMENT/MODIFICATIO | , | | | g solicitation/contract subject matter when | | | |
| DUNS Nur | | amian ia | to icano Dorr | | on 11 to World Acaien | ont OF | ODTCO | 03 <i>D</i> D |
| rne pur | pose of this Modific | ation is | to issue kev. | ISI | on 11 to Work Assignm | ient 05 | ZRICO | USDR. |
| | | | | | | | | |
| | | | | | | | | |
| Max Exp: | ire Date: 06/26/2017 | | | | | | | |
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| | | the document ref | erenced in Item 9A or 10/ | | heretofore changed, remains unchanged a | | | |
| 15A. NAME A | ND TITLE OF SIGNER (Type or print) | | | 16 | A. NAME AND TITLE OF CONTRACTING | OFFICER | Type or pr | int) |
| | | | | A | l Pinero | Wali | | . B |
| 15B. CONTRA | ACTOR/OFFEROR | | 15C. DATE SIGNED | 16 | B. UNITED STATES OF AMERICA | | | ISC. DATE SIGNED |
| | (Signature of person authorized to sign) | | | - | (Signature of Contracting Officer | | | 316114 |
| NSN 7540-01 | | | | - | V | | | M 30 (REV) 10-83) |
| Previous editi | on unusable | | | | | | bed by GS 8 CFR) 53. | |

t a diagonal and management and his process of more than the control of a control of the control

| EPA WORK ASSIGNMENT FORM (WAF) FOR RAC | | | | | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| 1. WORK ASSIGNMEN | T (WA) INFORMATION | | | | | | | | |
| Project Name: <u>Chem-Fab</u> |) | Contractor: HGL | | WA | No.: 052 I | RICO 03DR | | | |
| Activity: RIFS | | EPA Contract N | o. <u>EP-S:</u> | 3-07-05 | Revis | ion No.: 11 (Eleven) | | | |
| Date: 03-05-2014 | Contractor | Control No. | | | _ Modification | No.: 267 Contracting Officer Use Only) | | | |
| | | | | | , | contracting Officer Ose Only) | | | |
| 2. DESCRIPTION OF A | CTION | | | | | | | | |
| New WA (need WP for the WA) . Attach SOW including schedule . Designate WAM | WP for the WA) ch SOW including edule (need revised WP and/or cost estimate) . Change in LOE or scope | | Partial WP Approval WP Disapproval Final WP Approval Amendment to Final WP Approval Approve change in LOE, scope, or budget Approve additional tasks | | | Incremental Funding . Fund approved WP WA Closeout Notification . Notify contractor to initiate WA closeout task . Revise EL after final invoice Other | | | |
| 3. BUDGET INFORMA | ΓΙΟΝ | | | | | | | | |
| Completion WA _X Total Funding Receive | Approved Work Plan Budget LOE (\$)* Term WAs Only | | | Expenditure Limits Not to Be Exceeded L OE (\$)* Term WAs only | | | | | |
| Previous Total | ··· | 3,716 786,653 | | | 3,716 | 786,653 | | | |
| This Action | | | | 260 | 49,651 | | | | |
| New Total | | 3,976 836,304 * Includes fees | | 4 | * 3,976 * Includes fe | 836,304 | | | |
| Funding Category: <u>Bulk</u> | - | | | | | | | | |
| Activity Code: RIFS | _ S/SID: <u>03DR</u> | | | | | , , | | | |
| 4. WA COMPLETION I | OATE Current: 07- | 30-2014 | | Revised: | | | | | |
| 5. EPA COMMENTS: | | | | | | | | | |
| The additional funding provides for a treatability study of emplacement of a treatment reagent during the removal action to remove contaminated soils. The activities associated with this treatability study include: -Procurement of treatment reagent for the major COCs at the Site: hexavalent chromium and VOCsCoordination with the removal program to emplace treatment reagents at the bottom of soil excavations -Post-emplacement sampling in nearby monitoring wells to determine the effectiveness of the treatment and the lateral and vertical movement of treatment reagent in groundwater -Development of a technical memorandum summarizing the treatability study results | | | | | | | | | |
| 6. APPROVALS | | | | | | | | | |
| Contractor Signatures: | | | EPA Si | gnatures: | | | | | |
| Site Manager/Firm | Date | - | , | ssignment Manager | | 03-05-2014 Date | | | |
| Program Manager/Firm | Date | | Hrank Ja | mes Cellucci mental Engineer | | 03-05-2014 Pate/ | | | |
| X Approved As Approved As Char | oproved With Not nges Approved | Signature of Co | htracting | Officer | | 3/6/14 Date | | | |

| TENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT | | | | | 1. CONTRACT ID CODE | | | F PAGES | | |
|------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------|--------------------------------------------|---------------|--------------------------------------------------------------------------------------------------------------------------------|----------|---------------|-----------------|-----------------|--|
| 2. AMENDMENT/MODIFICATION NO. | | 3. EFFECTIVE D | DATE | 4. F | REQUISITION/PURCHASE REQ. NO. | 5. PR | 1 OJECT NO |). (If applicab | <u>}</u> le) | |
| 0268 | | See Bloc | ኑ 16C | ļ | | | | | | |
| 5. ISSUED BY | CODE | R3 | K 100 | 7. / | ADMINISTERED BY (If other than Item 6) | CODE | | | | |
| REGION 3 US ENVIRONMENTAL PRO 1650 ARCH STREET PHILADELPHIA PA 1910 | | AGENCY | | | | | 1 | | | |
| 8. NAME AND ADDRESS OF CONTRA | CTOR (No., stree | t, county, State and 2 | ZIP Code) | (x) | 9A. AMENDMENT OF SOLICITATION NO. | | | | | |
| HYDROGEOLOGIC INC | יידווט מעט | E 400 | | | 9B. DATED (SEE ITEM 11) | | | | | |
| ESTON VA 20190-5309 | | 2 100 | | | | | | | | |
| | | | | x | 10A MODIFICATION OF CONTRACT/ORDER EP-S3-07-05 | NO. | | | | |
| | | | | | 10B. DATED (SEE ITEM 13) | | | | | |
| CODE 193942604 | | FACILITY COD | | | 06/28/2007 | | | | | |
| | | 11. THIS ITE | M ONLY APPLIES TO | ÅME | NDMENTS OF SOLICITATIONS | | | | | |
| THE PLACE DESIGNATED FOR TH | IE RECEIPT OF to change an offe nt, and is receive | OFFERS PRIOR or already submitted d prior to the oper | TO THE HOUR AND [ed, such change may b | OATE be ma | FAILURE OF YOUR ACKNOWLEDGEMENT TO SPECIFIED MAY RESULT IN REJECTION OF Note by telegram or letter, provided each telegram. | OUR O | FFER. If b | у | | |
| | Y APPLIES TO N | MODIFICATION OF | CONTRACTS/ORDE | RS. I | T MODIFIES THE CONTRACT/ORDER NO. AS D | ESCRIB | ED IN ITE | И 14. | | |
| CHECK ONE A THIS CHANGE OR | DED IS ISSUED | DUDGUANT TO: | Specify authority). TH | E CH | ANGES SET FORTH IN ITEM 14 ARE MADE IN | THE CO | NTRACT | | | |
| ORDER NO. IN ITE | M 10A. | PUNSUANT TO. | Specify authority) 111 | _ 011 | ANGEO DE L'ORTHANIEM ITAME MADE IN | 1112 00 | | | | |
| B. THE ABOVE NUME appropriation date, | ERED CONTRA etc.) SET FORT | CT/ORDER IS MO H IN ITEM 14, PU | DDIFIED TO REFLECT RSUANT TO THE AU | THE THO | E ADMINISTRATIVE CHANGES (such as change RITY OF FAR 43.103(b). | s in pay | ing office, | | | |
| C. THIS SUPPLEMEN | TAL AGREEME | NT IS ENTERED I | NTO PURSUANT TO | AUTH | HORITY OF: | • | | | | |
| D. OTHER (Specify ty) | oe of modification | and authority) | | | | | | | | |
| X B.2, Work A | ssignment | ts ' | | | | | | | | |
| E. IMPORTANT: Contractor | 🗵 is not, | - | sign this document a | | | · |). | - | | |
| | | (Organized by U | CF section headings, i | nclud | ing solicitation/contract subject matter where feat | sible.) | | | | |
| | | ation is 1 | o issue Res | <i>r</i> is | ion 10 to Work Assignmen | t. 03 | 1TATA | 0378. | | |
| ine purpose of this | HOULILE | CION ID | 20 20000 110 | | 2011 10 00 H011 1.0019 | | | | | |
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| | | the document refe | renced in Item 9A or 1 | | s heretofore changed, remains unchanged and in | | | | | |
| 15ANAME AND TITLE OF SIGNER | (I ype or print) | | | | IGA NAME AND TITLE OF CONTRACTING OF | -IUEK (| ı ype or pr | nc) | | |
| 15B. CONTRACTOR/OFFEROR | | | 15C. DATE SIGNED | | 6B. UNITED STATES OF AMERICA | | Ţ. | 16C, DATE SI | GNED | |
| | | | | A | | | | 7-11 | 1014 | |
| (Signature of person author | rized to sign) | | | L., | /(Signature of Contracting Office) | STAND | ARD FOR | M 30 (REV. 10 | 0-83) | |
| NSN 7540-01-152-8070 Previous edition unusable | | | | | | | ed by GS | | - 00) | |

Page 1 of 2

Prescribed by GSA FAR (48 CFR) 53.243

| EPA WORK ASSIGNMENT FORM (WAF) FOR RAC | | | | | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| 1. WORK ASSIGNMENT | r (WA) INFORMATION | | | | | | | | |
| Project Name: Ray | ymark Co | entractor: HGL | WA No. | :_031TATA037 | 8 | | | | |
| Activity: Technica | al Assistance | EPA Contract No. | EPS30705 R | evision No.: | 10 (Ten) | | | | |
| Date: 03-12-2014 | 4 Contractor | Control No. | М | | No.: 268 ng Officer Use Only) | | | | |
| 2. DESCRIPTION OF | ACTION | | | | | | | | |
| New WA (need WP for the WA) Attach SOW including schedule Designate Contracting Officer Representative (COR) | WA Amendment (need revised WP and/or cost estimate) .Change in LOE or scope by task .Add additional tasks or funds for increased activity | Partial WP AppWP DisapprovalFinal WP ApprovAmendment to FWP ApprovaApprove changeLOE, scope, orbudget .Approve additiontasks | Direction Memorandum .Details on budget, o .Minor shif inal SOW (no chang in \$/LOE) .Change WAM | scope, or schedule t within ge in | Incremental Funding . Fund approved WP WA Closeout Notification .Notify contractor to initiate WA closeout task .Revise EL after final invoiceOther | | | | |
| 3. BUDGET INFORMAT | rion | | | | - | | | | |
| Completion WA | Term WA | Approved Wo: | rk Plan Budget | Expendi LOE Term WAs o | ture Limits Not to Be Exceeded (\$)* | | | | |
| Previous Total | 0 | 913 | 134,157 | 913 | - | | | | |
| This Action | 0 | 30 | 3,000 | 30 | 3,000 | | | | |
| New Total Funding Category: Activity Code: TF | | 943 | _137,157 Includes fees | * Includes | | | | | |
| 4. WA COMPLETION I | | rent: 12-31-2014 | Revised: | | | | | | |
| 4. WA COMPLETION DATE Current: 12-31-2014 Revised: 5. EPA COMMENTS: Provide a Work Plan Addendum and Cost Estimate to: Get all the necessary permissions and do all the necessary coordination from the appropriate Authorities, Organizations and Entities Drill and develop six wells Sample the wells Coordinate with Ft. Mead lab and send samples to the lab Prepare a report with results and recommendations | | | | | | | | | |
| 6. APPROVALS | | | | | | | | | |
| Contractor Signatu | res: | Date | Jose Redmond Work Assignment Man | ager | 03-12-2014 Date | | | | |
| Program Manager/Fir | m | Date | Frank Cellucci Environmental Engin | | 03-12-2014 Date | | | | |
| X Approved As Approved As Cha | | oved Signat | ture of dontractings | ficer | 3-10-74(Date | | | | |

| AMENDMEI | NT OF SOLICITATION/MODIFIC | ATION OF CONTRACT | | 1. CONTRACT ID CODE | | PAGE OF | PAGES |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------|------------------------------------------------------------------------------------------|-------------|-----------------------|-----------------|
| 2. AMENDMEN | NT/MODIFICATION NO. | 3. EFFECTIVE DATE | 4. F | L REQUISITION/PURCHASE REQ. NO. | 5. PRO | JECT NO. | (If applicable) |
| 0269 | | See Block 16C | | | | | |
| 6. ISSUED BY | CODE | R3 | 7.7 | ADMINISTERED BY (If other than Item 6) | CODE | | |
| 1650 ARG | 3 RONMENTAL PROTECTION CH STREET LPHIA PA 19103-2029 | AGENCY | | | | | |
| B. NAME AND | ADDRESS OF CONTRACTOR (No., street | t, county, State and ZIP Code) | (x) | 9A. AMENDMENT OF SOLICITATION NO. | | | |
| VDDACEA | LOGIC INC | | <u> </u> | | | | |
| | NSET HILLS ROAD SUIT | E 400 | | 9B. DATED (SEE ITEM 11) | | | |
| | A 20190-5309 | | | | | | |
| | | | х | 10A. MODIFICATION OF CONTRACT/ORDER EP-S3-07-05 | NO. | | |
| | | | | 10B. DATED (SEE ITEM 13) | | | |
| CODE 10 | 2042604 | FACILITY CODE | - | 06/28/2007 | | | |
| | 3942604 | ł | | | | | - |
| 71 971 | numbered solicitation is amended as set fo | 11. THIS ITEM ONLY APPLIES TO | | | tended, | is not ex | handad |
| virtue of this to the solicite 12. ACCOUNT | amendment you desire to change an offe ation and this amendment, and is received ING AND APPROPRIATION DATA (If rec | er already submitted, such change may t d prior to the opening hour and date spe | oe ma | SPECIFIED MAY RESULT IN REJECTION OF de by telegram or letter, provided each telegram | | | ence |
| See Sche | | ADITION TION OF ACTUAL OTO/ADDE | | THORIES THE CONTRACTIONED NO. AC. | NECODIDE | D IN ITEM | 44 |
| | 13. THIS ITEM ONLY APPLIES TO M | ODIFICATION OF CONTRACTS/ORDE | RS. I | T MODIFIES THE CONTRACT/ORDER NO. AS D | PESCKIRE | DINIIEM | 14. |
| CHECK ONE | A. THIS CHANGE ORDER IS ISSUED I ORDER NO. IN ITEM 10A. | PURSUANT TO: (Specify authority) TH | E CHA | ANGES SET FORTH IN ITEM 14 ARE MADE IN | THE CO | NTRACT | |
| | B. THE ABOVE NUMBERED CONTRA appropriation date, etc.) SET FORTH | CT/ORDER IS MODIFIED TO REFLECT IN ITEM 14, PURSUANT TO THE AU | THE | ADMINISTRATIVE CHANGES (such as change RITY OF FAR 43.103(b). | es in payin | g office, | |
| | C. THIS SUPPLEMENTAL AGREEMEN | T IS ENTERED INTO PURSUANT TO | AUTH | ORITY OF: | | | |
| | D. OTHER (Specify type of modification | and authority) | | | | | |
| Х | B.2, Work Assignment | :S | | | | | |
| E. IMPORTANT | | is required to sign this document ar | nd reti | urn 0 copies to the issu | ing office. | | |
| | | | | ng solicitation/contract subject matter where fea | sible.) | | |
| UNS Num | | | | | • | | |
| he purp | oose of this Modifica | tion is to issue Rev | /is: | ion 15 to Work Assignmen | t 003 | RDRD03 | ЗН6. |
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| | | ne document referenced in Item 9A or 10 | | heretofore changed, remains unchanged and in | | | 1 |
| IVA. INAME AN | ND TITLE OF SIGNER (Type or print) | | | 6A. NAME AND TITLE OF CONTRACTING OF Tohn Robb | FIUER (1) | rpe or print, | r |
| 15B. CONTRA | CTOR/OFFEROR | 15C. DATE SIGNED | 16 | 6B. UNITED STATES OF AMERICA | | 160 | C. DATE SIGNED |
| | | | | / MM IM | | | 4.3.14 |
| | (Signature of person authorized to sign) | ************************************** | بلـ | (Signature of Contracting Officel) | OTAND | | 1 / |
| NSN 7540-01- Previous editio | | | 6 | | | RD FORM : d by GSA | 30 (REV. 10-83) |

FAR (48 CFR) 53.243

| EPA WORK ASSIGNMENT FORM (WAF) FOR RAC | | | | | | | | | |
|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|----------------------------------------------------|-------------------------------------------|--|--|
| 1. WORK ASSIGNMEN | Γ (WA) INFORMATION | | | | | | | | |
| Project Name: Standard C | hlorine of Delaware, Inc. | Contractor: | HGL | WA No.: | 003RDRD03H | <u>16</u> | | | |
| Activity: RD | | EPA Contract No. EI | 2-S3-0705 | | Revision No | o.: <u>15 (Fifteen</u> |) | | |
| Date: 03-31-2014 (Contracting Officer Use O | | Control No. | | | Modi | fication No.: 269 |) | | |
| 2. DESCRIPTION OF A | CTION | | | | | | | | |
| New WA (need WP for the WA) . Attach SOW including schedule . Designate WAM | WA Amendment (need revised WP and/or cost estimate) . Change in LOE or scope by task . Add additional tasks or funds for increased activity | — Partial WP Approval — WP Disapproval — Final WP Approva — Amendment to Final WP Approval . Approve change in I scope, or budget . Approve additional | al nal LOE, | Technical Direct Memorandum Details on scope, schedule Minor shift withit (no change in \$/It. Change WAM X Set or revise limit (EL) | budget, or n SOW LOE) | . Notify contra closeout task . Revise EL af | d WP out Notification ctor to initiate WA | | |
| 3. BUDGET INFORMA | rion | | | | | | | | |
| Completion WA | Term WA | Approved W | ork Plan I | Budget | Expen | diture Limits No | t to Be Exceeded | | |
| Total Funding Receive | LOE Term WAs Only | | | | only | (\$)* | | | |
| Previous Total | 0 | 5,449 679,799 | | | 4190 | - | 439,888 | | |
| This Action | 0 | 0 | | | 0 | _ | 110,112 | | |
| New Total | 0 | | | | 4190 | _ | 550,000 | | |
| Funding Category: Bulk | Funding | * Includes fees *Includes | | | *Includes f | ees | | | |
| Activity Code: RDRD S | 5/SID: <u>03H6</u> | | | | | | | | |
| 4. WA COMPLETION I | DATE Current: 12- | 31-2014 | Revised: | 12-31-2015 | | | | | |
| 5. EPA COMMENTS: Expenditure | | | | | | | | | |
| 6. APPROVALS | | | | | | | | | |
| Contractor Signatures: | | | EPA Si | gnatures: | | | | | |
| Site Manager/Firm | | Date | /s/ <u>Brac</u> Work A | d White ssignment Manager | | | 03-31-2014 Date | | |
| Program Manager/Firm | | Date | | nk James Cellucci mental Engineer | | | 03-31-2014 Date | | |
| Approved As Approved As Chans | pproved With Not ges Approved | Signatu | ire of Cor | ntracting Officer, | | le Z g | 14 | | |

| AMENDI | MENT OF SOLICITATION/M | ODIFICA [*] | TION OF CONTRACT | 1. CONTRACT ID CODE | | | PAGE OF PAGES | |
|------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------------------------------|------------------|
| 2. AMENDM | MENT/MODIFICATION NO. | 3 | . EFFECTIVE DATE | 4. R | EQUISITION/PURCHASE REQ. NO. | 5. PR | 1 OJECT NO. (If a | 5 applicable) |
| 0270 | * | 9 | See Block 16C | See | e Schedule | | | |
| 6. ISSUED I | BY | | 3 | 7. A | DMINISTERED BY (If other than Item 6) | CODE | E | |
| 1650 A | 3 TRONMENTAL PROTEC RCH STREET ELPHIA PA 19103-20 | | GENCY | | | | L | |
| 8. NAME AN | ND ADDRESS OF CONTRACTOR (| No., street, co | ounty, State and ZIP Code) | (%) [5 | PA. AMENDMENT OF SOLICITATION NO. | | | |
| | | | | (^/ | • | | | |
| | EOLOGIC INC | | | | | | | |
| | SUNSET HILLS ROAD | SUITE | 400 | | BB. DATED (SEE ITEM 11) | | | |
| RESTON | VA 20190-5309 | | | . | | | | |
| | | | | | OA. MODIFICATION OF CONTRACT/ORDER | NO. | | |
| | | | | 1 1 | EP-S3-07-05 | | | |
| | | | | | OR DATED (DEE !TEM 40) | | | |
| CODE 1 | 000105- | | ACILITY CODE | | OB. DATED (SEE ITEM 13) | | | |
| 1 | 93942604 | F | | | 06/28/2007 | | | |
| | e numbered solicitation is amended | | 11. THIS ITEM ONLY APPLIES TO | | | | | |
| Items 8 ar separate I THE PLAG virtue of th | nd 15, and returning letter or telegram which includes a r CE DESIGNATED FOR THE RECE | copies reference to EIPT OF OF se an offer a | s of the amendment; (b) By acknow the solicitation and amendment nur FERS PRIOR TO THE HOUR AND Iready submitted, such change may | ledging r mbers. F DATE S be mad | ation or as amended, by one of the following me eceipt of this amendment on each copy of the of FAILURE OF YOUR ACKNOWLEDGEMENT TO PECIFIED MAY RESULT IN REJECTION OF No e by telegram or letter, provided each telegram | offer subr O BE RE OUR O | mitted; or (c) By CEIVED AT FFER. If by | |
| 12. ACCOU | NTING AND APPROPRIATION DA | | 0 | | crease: \$ | 427, | 693.00 | |
| see sc. | hedule | | | | | | | |
| • | 13. THIS ITEM ONLY APPLI | ES TO MOD | IFICATION OF CONTRACTS/ORDI | ERS. IT | MODIFIES THE CONTRACT/ORDER NO. AS D | ESCRIB | ED IN ITEM 14. | |
| CHECK ONE | A. THIS CHANGE ORDER IS IS ORDER NO. IN ITEM 10A. | SSUED PU | RSUANT TO: (Specify authority) Th | HE CHA | NGES SET FORTH IN ITEM 14 ARE MADE IN | THE CO | NTRACT | |
| | | | | | | | | |
| | appropriation date, etc.) SE | T FORTH IN | ORDER IS MODIFIED TO REFLEC I ITEM 14, PURSUANT TO THE AU | T THE A | ADMINISTRATIVE CHANGES (such as change FY OF FAR 43.103(b). | s in payii | ng office, | |
| | C THIS SUDDIEMENTAL ACE | SEELAE NET 1 | S ENTERED INTO PURSUANT TO | A117110 | D.52/ OF | | | |
| | O. THIS SOLF ELIVILIATE AGE | CEMENT I | S ENTERED INTO PORSOANT TO | AUTHO | RITTOF. | | | |
| | D. OTHER (Specify type of mod | diffication an | d authority) | | | | | |
| v | 1 | | • • | | Contract Administration Rep | | | |
| X | | | | | ^ | esent | atives | |
| E. IMPORTA | | | is required to sign this document a | | | • | | |
| | | CATION (Or | ganized by UCF section headings, | including | solicitation/contract subject matter where feas | ible.) | | |
| OUNS NU | | | | | | | | |
| see Ite | em 14 Continuation | on pa | ige three (3) | | | | | |
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| Continu | ied | | | | | | | |
| | | ons of the d | ocument referenced in Item 9A or 1 | OA. as h | eretofore changed, remains unchanged and in | full force | and effect | |
| | AND TITLE OF SIGNER (Type or p | | | | NAME AND TITLE OF CONTRACTING OFF | | | |
| | | | | | | | | |
| | | | | | hn Robb | | | |
| 15B. CONTR | ACTOR/OFFEROR | | 15C. DATE SIGNED | 16B | UNITED STATES OF AMERICA | | 16C. DA | TE SIGNED |
| | | | | | L+M Millin | | 1 17 | . 1 a + An ist |
| | (Signature of person authorized to sign |) | | | (Signalure of Contracting Officer) | | | 10 1019 |
| NSN 7540-01 Previous edit | 1-152-8070 ion unusable | | | | | | RD FORM 30 (R ed by GSA | EV. 10-83) |

Page 1 of 5

Prescribed by GSA FAR (48 CFR) 53.243

| CONTINUATION CHEET | REFERENCE NO. OF DOCUMENT BEING CONTINUED | PAGE (|)F |
|--------------------|-------------------------------------------|--------|----|
| CONTINUATION SHEET | EP-S3-07-05/0270 | 2 | 5 |

NAME OF OFFEROR OR CONTRACTOR HYDROGEOLOGIC INC

| | SUPPLIES/SERVICES | QUANTITY | ONL | UNIT PRICE | AMOUNT |
|------|----------------------------------------------------|----------|-----|------------|-----------|
| (A) | (B) | (C) | (D) | (E) | (F) |
| | Payment: | | | | |
| | RTP FINANCE CENTER | | | * | |
| | US ENVIRONMENTAL PROTECTION AGENCY | | | | |
| | RTP-FINANCE CENTER D143-02 | | | | |
| | | | | | |
| | 109 TW ALEXANDER DRIVE | | | | |
| | DURHAM NC 27711 | | | ŀ | |
| 0049 | Add special account funding for RIFS OS, OU1, | | | | 185,242.0 |
| 5045 | activities at the Central Chemical (Hagerstown) | | | | 103,242. |
| | | | 1 | | |
| | SF Site (03EQ) - RACs Contract EPS30705, HGL, | | | | |
| | Work Assignment 014. | | | | |
| | Obligated Amount: \$185,242.00 | | | | |
| | Requisition No: PR-R3-14-00078 | | | | |
| | Accounting Info. | | | | |
| | Accounting Info: | | | | |
| | 14-TR2B-03S0XEQ-303DD2-2505-03EQBD01-C003-1403SK10 | | | | |
| | 13-001 BFY: 14 Fund: TR2B Budget Org: 03S0XEQ | | | | |
| | Program (PRC): 303DD2 Budget (BOC): 2505 Job #: | | | | |
| | 03EQBD01 Cost: C003 DCN - Line ID: 1403SK1013-001 | | | | |
| | Funding Flag: Partial | | | | |
| | Funded: \$185,242.00 | | | | |
| | | | | | |
| 0050 | Add special account funding for RD OS, OU1, | | | | 242,451. |
| | activities at the Central Chemical (Hagerstown) | | | | |
| | SF Site (03EQ) - RACs Contract EPS30705, HGL, | | | | |
| | Work Assignment 030. | | | | |
| | Obligated Amount: \$242,451.00 | | | | |
| | | | | | • |
| | Requisition No: PR-R3-14-00079 | | | | |
| | Accounting Info: | | | | |
| | 14-TR2B-03S0XEQ-303DD2-2505-C001-1403SK1014-001 | | 1 | | |
| | BFY: 14 Fund: TR2B Budget Org: 03S0XEQ Program | | | | |
| | | | | | |
| | (PRC): 303DD2 Budget (BOC): 2505 Job #: 03EQBE01 | | | | |
| | Cost: C001 DCN - Line ID: 1403SK1014-001 | | | | |
| | Funding Flag: Partial | | | | |
| | Funded: \$242,451.00 | | | | |
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Modification 270

Item 14 Continuation

- 1. The purpose of this modification is to obligate Special Account Funding and to change the Project Officer.
- 2. Funds are obligated as follows:
 - a. Obligate \$185,242 to WA 014RSBD03EO
 - b. Obligate \$242,451 to WA 030ROBE03EQ
- 3. Section B, Paragraph B.6, Limitation of Funds Notice (EP 52.232-100) is modified as follows:

| Term Form Segment | Contract Funding Thru MOD 257 | Funding Chang | es Current Funding |
|---------------------------|----------------------------------|---------------|--------------------|
| Estimated Cost | - Exemp | tion (| b') (4)— |
| Fixed Fee | <u> </u> | • | |
| Total Cost Plus Fixed Fee | \$30,812,048.03 | \$427,693.00 | \$31,239,741.03 |

4. Clause G.6 - Contract Administration Representatives

The Project Officer is changed to:

Claudette M. Reed, Chief Administrative Support Branch (3HS42) Office of Technical and Administrative Support Hazardous Site Cleanup Division U.S. EPA Region 3 1650 Arch Street | Philadelphia, PA 19103 Phone: 215-814-2997 | Fax: 215-814-3015

| EPA WORK ASSIGNMENT FORM (WAF) FOR RAC | | | | | | | | | | |
|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| 1. WORK ASSIGNM | ENT (WA) INFORMAT | ION | | | | | | | | |
| Activity: RIFS Oversigh | al Chemical Control | A Contract No. <u>EPS3</u> | 30705 | Modificati | | 270 | | | | |
| 2. DESCRIPTION OF ACTION | | | | | | | | | | |
| New WA (need WP for the WA) . Attach SOW including schedule . Designate WAM | WA Amendment (need revised WP and/o cost estimate) . Change in LOE or scope by task . Add additional tasks o funds for increased activity | WP Disapprov Final WP App | oroval o Final in oudget | Technical Di Memorandur . Details on scop or schedule . Minor shift wit (no change in S . Change WAM Set or revise expenditure limi | n oe, budget, hin SOW S/LOE) | Incremental Funding . Fund approved WP WA Closeout Notification . Notify contractor to initiate WA closeout task . Revise EL after final invoice X _ Other Obligate Funds | | | | |
| 3. BUDGET INFORMATION | | | | | | | | | | |
| Completion WA | X Term WA | Approved V | Approved Work Plan Budget | | | are Limits Not to Be Exceeded | | | | |
| Completion WAX Term WA Total Funding Received (\$) Previous Total | | LOE (\$)* Term WAs Only 2230 | | | LOE (\$)* Term WAs only 2230 | | | | | |
| 4. WA COMPLETION | N DATE Current: | 3/25/2010 | | Revised | | | | | | |
| 5. EPA COMMENTS. This work assignment | amendment adds Specia | al Account funding | | | | | | | | |
| 6. APPROVALS | | | 1 | | | and the second s | | | | |
| Contractor Signatures: Site Manager/Firm | Date | | Mitch C Work A Frank J | ssignment Manage | er | 04-01-2014 Date 04-01-2014 Date | | | | |
| | Approved With N hanges Approv | | | mental Engineer Of Management of Contracting Of | fficer | 4 ° 10 ° 18 14 Date | | | | |

| EPA WORK ASSIGNMENT FORM (WAF) FOR RAC | | | | | | | | | |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|--|--|
| 1. WORK ASSIGNMENT | (WA) INFORMATION | | | | | | | | |
| Activity: RD Oversight | | | S30705 | | WA No.: 030R0BE03EQ Revision No.: 9 (Nine.) Modification No.: 270 (Contracting Officer Use Only) | | | | |
| 2. DESCRIPTION OF A | CTION | | | | | | , | | |
| New WA (need WP for the WA) . Attach SOW including schedule . Designate WAM | WA Amendment (need revised WP and/or cost estimate) . Change in LOE or scope by task . Add additional tasks or funds for increased activity | Partial WP Ap WP Disapprov Final WP Appr Amendment to WP Approval Approve change ir scope, or budget Approve additional | al roval Final | Technical D Memorandul Details on scope or schedule Minor shift withi (no change in \$ Change WAM Set or revis | m e, budget, n SOW G/LOE) | X Increment Incr | d WP out Notification for to initiate task | | |
| 3. BUDGET INFORMAT | ION | | | expenditure limit | (EL) | | | | |
| Completion WA Total Funding Recommendation Previous Total This Action New Total | | Approved W LOE Term WAs Only 2770 2770 * Includes fees | 3 | (\$)* 392,451 | LOE Term WAs |) | Be Exceeded (\$)* 392,451 0 392,451 | | |
| Funding Category:E Activity Code:ROBE | | | | | | | | | |
| 4. WA COMPLETION D | ATE Current: | 06-30-2014 | | Revis | sed: | | | | |
| 5. EPA COMMENTS: This work assig | nment amendment add | ds Special Account | funding | | | | | | |
| 6. APPROVALS | Market | · | | | | ······································ | | | |
| Contractor Signatures: Site Manager/Firm | | Date | | ignatures: ron Work Assignment Manager | | | 04-01-2014 Date | | |
| Program Manager/Firm | | Date Frank Cellucci Enviror | | | 04-0-2 vironmental Engineer Date | | | | |
| Approved As X | | Not Signatu | 24 ire of Cont | 4 J AA tracting Officer | | | -10 - 90 (L) Date | | |

| AMENDMENT OF SOLICITATION/MODIFIC | | CONTRACT ID CODE | | PAGE OF PAGES | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-----------------------------------------------|--------------------------------------------|--|
| 2. AMENDMENT/MODIFICATION NO. | 3. EFFECTIVE DATE | 4. REQ | UISITION/PURCHASE REQ. NO. | ls. PRO | 1 16 DJECT NO. (If applicable) | |
| 0271 | See Block 16C | | | | , , , , , , , , , , , , , , , , , , | |
| 6. ISSUED BY CODE | | 7. ADN | INISTERED BY (If other than Item 6) | CODE | | |
| REGION 3 US ENVIRONMENTAL PROTECTION 1650 ARCH STREET PHILADELPHIA PA 19103-2029 | | | | | | |
| 8. NAME AND ADDRESS OF CONTRACTOR (No., street | et, county, State and ZIP Code) | (x) ^{9A.} | AMENDMENT OF SOLICITATION NO. | | | |
| HYDROGEOLOGIC INC 11107 SUNSET HILLS ROAD SUIT RESTON VA 20190-5309 | E 400 | 9B. | DATED (SEE ITEM 11) | | | |
| | | A EF | MODIFICATION OF CONTRACT/ORD | DER NO. | | |
| CODE | EACH ITY CODE | | DATED (SEE ITEM 13) | | | |
| CODE 193942604 | FACILITY CODE | | 6/28/2007 | | | |
| | 11. THIS ITEM ONLY APPLIE | ES TO ÁMENDM | ENTS OF SOLICITATIONS | | | |
| Items 8 and 15, and returning separate letter or telegram which includes a referenc THE PLACE DESIGNATED FOR THE RECEIPT OF virtue of this amendment you desire to change an off to the solicitation and this amendment, and is receive 12. ACCOUNTING AND APPROPRIATION DATA (If re | e to the solicitation and amendmer OFFERS PRIOR TO THE HOUR er already submitted, such change ad prior to the opening hour and da | nt numbers. FAI AND DATE SPE e may be made bate specified. | CIFIED MAY RESULT IN REJECTION by telegram or letter, provided each teleg | IT TO BE REC OF YOUR OF ram or letter n | DEIVED AT FER. If by nakes reference | |
| See Schedule | quirea) | Net Dec | rease: | -\$642 | ,189.66 | |
| 13. THIS ITEM ONLY APPLIES TO I | MODIFICATION OF CONTRACTS/ | ORDERS. IT MO | DDIFIES THE CONTRACT/ORDER NO. A | AS DESCRIBE | D IN ITEM 14. | |
| | CT/ORDER IS MODIFIED TO RE H IN ITEM 14, PURSUANT TO TH | FLECT THE ADI HE AUTHORITY | ES SET FORTH IN ITEM 14 ARE MADI MINISTRATIVE CHANGES (such as che OF FAR 43.103(b). | | | |
| | | | | | | |
| D. OTHER (Specify type of modification | and authority) | | | | | |
| X B.2, Work Assignment | s and B.6, Limit | ation of | Funds | | | |
| E. IMPORTANT: Contractor X is not, | is required to sign this docum | ment and return | 0 copies to the i | issuing office. | | |
| 14. DESCRIPTION OF AMENDMENT/MODIFICATION DUNS Number: 193942604 | (Organized by UCF section head | lings, including s | olicitation/contract subject matter where | feasible.) | | |
| See Item 14 Continuation on | page three (3) | | | | | |
| | | | | | | |
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| | | | | | | |
| Continued | | | / | | | |
| Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10 | | | | | | |
| 15A. NAME AND TITLE OF SIGNER (Type or print) | | | NAME AND TITLE OF CONTRACTING | OFFICER (Ty | rpe or print) | |
| 15B. CONTRACTOR/OFFEROR | 15C. DATE SIG | NED 16B. (| INITEDISTATES OF AMÉRICA | | 16C. DATE SIGNED | |
| (Signature of person authorized to sign) NSN 7540-01-152-8070 | | | (Signalure of Contracting Officer) | CTAND | RD FORM 30 (REV. 10-83) | |

Previous edition unusable

STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243

| | · | | |
|--------------------|-------------------------------------------|--------|----|
| CONTINUATION SUBST | REFERENCE NO. OF DOCUMENT BEING CONTINUED | PAGE 0 | ıF |
| CONTINUATION SHEET | EP-S3-07-05/0271 | 2 | 16 |
| | | | |

NAME OF OFFEROR OR CONTRACTOR HYDROGEOLOGIC INC

| ITEM NO. (A) | SUPPLIES/SERVICES (B) | QUANTITY (C) | UNIT (D) | UNIT PRICE (E) | AMOUNT (F) |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------|-------------------|---------------|
| | Payment: RTP FINANCE CENTER US ENVIRONMENTAL PROTECTION AGENCY RTP-FINANCE CENTER D143-02 109 TW ALEXANDER DRIVE RESEARCH TRIANGLE PARK NC 27711 | | | | |
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Modification 271

Item 14 Continuation

- 1. The purpose of this modification is to de-obligate funds and to issue revisions to the following Work Assignments:
 - a. Revision 37 to WA 006RICO032C
 - b. Revision 14 to WA 017LRLR03Q9
 - c. Revision 5 to WA 043TATA0327
 - d. Revision 3 to WA 055RIFS03EW
- 2. Funds are de-obligated as follows:
 - a. De-Obligate \$642,189.66 from WA 017LRLR03Q9

CHANGES FOR ACCOUNTING CODE: 09-T-3AS0RQ9-302DD2C-2505-03Q9LR02-C001-093ASE0012-001

CHANGES FOR ACCOUNTING CODE: 10-T-3AS0RQ9-302DD2C-2505-03Q9LR02-C001-103ASE0006-001

3. Section B, Paragraph B.6, Limitation of Funds Notice (EP 52.232-100) is modified as follows:

| Term Form Segment | Contract Funding Thru MOD 270 | | | |
|---------------------------|----------------------------------|------------------|-----------------|--|
| Estimated Cost | \$Exer | nption | (b) (4) | |
| Fixed Fee | | _ | | |
| Total Cost Plus Fixed Fee | \$31,239,741. | 03 -\$642,189.66 | \$30,597,551.37 | |

| EPA WORK ASSIGNMENT FORM (WAF) FOR RAC | | | | | | | |
|-----------------------------------------|----------------------------------------------------------------|------------------------------|---------------------------------------------|-------------------|----------------------------------|--|--|
| 1. WORK ASSIGNMENT | (WA) INFORMATION | | | | | | |
| Project Name: | | | | | | | |
| Activity: RI/FS | EP | A Contract No. EP S | EP S 6 7 05 Revision No.: 37 (Thirty-Seven) | | | | |
| Date:O4-14-2014 Contractor Control No | | | | | | | |
| | | | | (Contracting Of | fficer Use Only) | | |
| 2. DESCRIPTION OF A | CTION | - | | | | | |
| _ New WA | WA Amendment | Partial WP Approv | al Technica | al Direction | Incremental Funding | | |
| (need WP for the WA) | (need revised WP and/or | WP Disapproval | Memoran | dum | . Fund approved WP | | |
| . Attach SOW | cost estimate) | Final WP Approval | . Details on sc | ope, budget, | WA Closeout Notification | | |
| including schedule | . Change in LOE or | _X Unilateral | or schedule | | . Notify contractor to initiate | | |
| . Designate WAM | scope by task | Amendment to Final | . Minor shift wi | thin SOW | WA closeout task | | |
| | . Add additional tasks or | WP Approval | (no change in | n \$/LOE) | . Revise EL after final invoice | | |
| | funds for increased | . Approve change in LC | E, Change WAN | 1 . | Other | | |
| | activity | scope, or budget | X Set or r | evise | | | |
| | | . Approve additional tas | ks expenditure lim | it (EL) | | | |
| 3. BUDGET INFORMAT | ION | | | | | | |
| Completion WA | X Term WA | Approved Work | Plan Budget | Expendi | ture Limits Not to Be Exceeded | | |
| Total F | unding Received (\$) | LOE | (\$)* | LOE | (\$)* | | |
| Previous Total | | Term WAs 0 | Only | | Term WAs only | | |
| This Action | | 16,239 | 2,812,971 | 16,232 | 2,688,658 | | |
| New Total | | 950 | 0 | 950 | 0 | | |
| | | 17,189 | 2,812,971 | 17,182 | 2,688,658 | | |
| Funding Category: Bu | lk Funding | * Includes fees | • | * Includes | fees | | |
| Activity Code: RICO | S/SID: 032C | | | | | | |
| | | | | | | | |
| 4. WA COMPLETION D | ATE Current: C | 06-30-2015 | Revised: | | | | |
| 5. EPA COMMENTS: | | | | | | | |
| | ondmont is boing issued on | n unilatoral basis in accord | ance with the contract | If the contract | or concurs with the cost and LOE | | |
| - | - | | | | pt. If the contractor does not | | |
| | equired to return a signed cop ed on the work assignment fo | | TOTH WILLIEF 5 WORKING C | lays alter receip | of. If the contractor does not | | |
| concur, this must be note | d on the work assignment to | | | | | | |
| This Work Assignment an | nendment adds LOE hours to | complete aroundwater car | nnling described in the | current approv | ved work nlan Reneated | | |
| _ | | | , | | torm season, and delays at the | | |
| EPA lab contributed to th | ŭ | the ectaber zero governin | John Ghalagwin, the olgi | micant winter of | onn coucon, and aciayo at the | | |
| Li A lab contributed to th | e LOL Shortian. | | | | | | |
| | | | | | | | |
| 6. APPROVALS | | | | | | | |
| Contractor Signatures | | D | ashmi Mathur | | 04-14-2014 | | |
| Contractor Signatures: | | | ork Assignment Manag | er | Date | | |
| Site Manager/Firm Date | | | audette Reed | 04-14-2014 | | | |
| *************************************** | | , | oject\@fficer | | Date | | |
| Program Manager/Firm | | Date | $All_{A}(X)$ | | | | |
| V | | | 1 1/11 1/1 | | ladi. | | |
| Approved AsAp | proved WithNot | | WHA | | <u> </u> | | |
| Submitted Cha | inges Approved | Sia | nature of Contracting C | Officer | Date | | |

| EPA WORK ASSIGNMENT FORM (WAF) FOR RAC | | | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--|
| 1. WORK ASSIGNMENT (WA) INFORMATION | | | | | | | | |
| Activity: Long Term Ro | <u> </u> | | -S3-07-05 | | Modification 1 | : 14 (Fourteen | | |
| 2. DESCRIPTION OF A | | | | V4.814.8141.078.0014.41 | | | | |
| New WA (need WP for the WA) . Attach SOW including schedule . Designate WAM WA Amendment (need revised WP and/or cost estimate) . Change in LOE or scope by task . Add additional tasks or funds for increased activity | | WP Disapproval WP Disapproval Final WP Approval Amendment to Final WP Approval Approve change in LOE, | | Technical Direction Memorandum Details on scope, budget, or schedule Minor shift within SOW (no change in \$/LOE) Change WAM X_ Set or revise expenditure limit (EL) | | Incremental Funding .Fund approved WP WA Closeout Notification . Notify contractor to initiate WA closeout task . Revise EL after final invoiceX Other De-Obligation | | |
| 3. BUDGET INFORMA | rion · | - | | | | | | |
| Completion WA | Term WA | Approved V | Vork Plan I | Budget | Expen | diture Limits Not | to Be Exceeded | |
| Total Funding Received (\$) | | LOE Term WAs Only | | | LOE Term WAs o | only | (\$)* | |
| Previous Total 1,200,00 | 00 | 8,093 | | 1,181,881 | 8093 | | 1,181,881 | |
| This Action642,18 | 9.66 | 0 | | 0 | 0_ | _ | 371,050.63 | |
| New Total <u>557,810.34</u> Funding Category: <u>Site Specific</u> | | 8,093 * Includes fees | | 1,181,881 | <u>8093</u> * Includes fo | ces | 810,830.37 | |
| Activity Code: <u>LR</u> S 4. WA COMPLETION I | | 31-2014 | Revis | sed: | L | | | |
| 5. EPA COMMENTS: | ATE Current. 12- | 31-2017 | TOVI | | | | | |
| | De-Obligate fu | nds | | | | | | |
| 6. APPROVALS | | | | | | | | |
| Contractor Signatures: | | EPA Si | gnatures: | | | | | |
| Site Manager/Firm | | Date | | nie M. Davis ssignment Manager | I | | 01-2014 Date _) | |
| Program Manager/Firm | | Date | /s/ Frank James Cellucci 04-01-2014 Environmental Engineer Date | | | | | |
| Approved As Ap | proved With Not | - | Signature | of Contracting Office | r. | <u> </u> | Date | |

| | EPA WORK ASS | SIGNMENT FO | RM (W | AF) FOR RA | AC | | | |
|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| 1. WORK ASSIGNMENT (WA) INFORMATION | | | | | | | | |
| Project Name: Chemical Metals Industries Activity: Technical Assistance Date: 04-14-2014 | | Contractor: HGL EPA Contract No. EP-S3-0705 Contractor Control No. | | WA No.: 043TATA0327 Revision No.: 5 (Five) Modification No.: 271 (Contracting Officer Use Only) | | | | |
| 2. DESCRIPTION OF A | CTION | | | | | | | |
| New WA (need WP for the WA) . Attach SOW including schedule . Designate WAM | WA Amendment (need revised WP and/or cost estimate) . Change in LOE or scope by task . Add additional tasks or funds for increased activity | WP Disapproval Details of schedule Final WP Approval Minor sh (no chang WP Approval WP Approval WP Approval | | Technical Dire | , budget, or in SOW LOE) | Incremental Funding . Fund approved WP X WA Closeout Notification . Notify contractor to initiate WA closeout task . Revise EL after final invoiceOther | | |
| 3. BUDGET INFORMA | ΓΙΟΝ | | | | | | | |
| Completion WA | Term WA | Approved W | ork Plan I | Budget | Expen | diture Limits Not to Be Exceeded | | |
| Total Funding Received (\$) | | LOE (\$)* Term WAs Only | | LOE Term WAs o | (\$)* only | | | |
| Previous Total | | 957 | 204,963 | | 957 | | | |
| This Action | | 0 | 0 | | 0_ | 0 | | |
| New Total | | 957 <u>204,963</u> * Includes fees | | 957 | | | | |
| Funding Category: Bul | k Funding | includes lees | | micraues re | 2005 | | | |
| Activity Code: RIRI | S/SID: 0327 | | | | | | | |
| 4. WA COMPLETION I | DATE Current: 06- | 30-2014 | Revis | ed: | | | | |
| 5. EPA COMMENŢS: | | | | | | | | |
| This amendment clos | es out this Work Assigr | ment. The contracto | r is auth | orized to stop all | technical w | ork at the site. | | |
| 6. APPROVALS | - | t | | | | | | |
| Contractor Signatures: | | | EPA Sig | gnatures: | | | | |
| Site Manager/Firm Program Manager/Firm | | Date /s/ Mitch Cron 04-14-201 Work Assignment Manager Date /s/ Claudette Reed / Project Officer 04-14-201 Date Date | | | | | | |
| | proved With Not | Date | T D | | and the second s | ¥(17/14 | | |
| | anges Approved | d Sign | ature of Co | ontracting Officer, | | Date | | |

| EPA WORK ASSIGNMENT FORM (WAF) FOR RAC | | | | | | | | |
|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| 1. WORK ASSIGNMENT (WA) INFORMATION | | | | | | | | |
| Project Name: Sauer Dump Activity: RI/FS Oversig Date: 04/14/2014 | Contractor: HGL EPA Contract No. EP-S3-07-05 Contractor Control No. | | | Revision Modifica | WA No.: 055RIFS03EW Revision No.: 3 (Three) Modification No.: 271 (Contracting Officer Use Only) | | | |
| 2. DESCRIPTION OF A | CTION | | | | | | | |
| New WA (need WP for the WA) . Attach SOW including schedule . Designate WAM | X WA Amendment (need revised WP and/or cost estimate) Change in LOE or scope by task Add additional tasks or funds for increased activity | Partial WP Approval WP Disapproval Final WP Approval Amendment to Final | | budget, or n SOW LOE) | Incremental Funding . Fund approved WP WA Closeout Notification . Notify contractor to initiate WA closeout task . Revise EL after final invoice Other | | | |
| 3. BUDGET INFORMAT | TION | | | | | | | |
| Completion WA X | Term WA | Approved Work Plan Budget | | Expen | Expenditure Limits Not to Be Exceeded | | | |
| Total Funding Receive | ed (\$) | LOE Term WAs Only | | (\$)* | LOE Term WAs o | (\$)* only | | |
| Previous Total 134,000 | | 1,038 | | 122,551 | 1,038 | 122,551 | | |
| This Action 0 | | 0 | | 0 | 0 | 0 | | |
| New Total 134,000 Funding Category: Site Specific | | 1,038 * Includes fees | | 122,551 | 1,038 * Includes fe | | | |
| Activity Code: RIFS 4. WA COMPLETION I | S/SID:03EW | 1-2014 | Revis | ed: | | | | |
| | DATE Current. 12-3 | 11-2014 | Kevis | cu | | And the second s | | |
| 5. EPA COMMENTS: The contractor shall submit a WP/CE in accordance with the revised Statement of Work. | | | | | | | | |
| 6. APPROVALS | | | | | | | | |
| Contractor Signatures: | | EPA Sig | natures: | | | | | |
| Site Manager/Firm | | Date | /s/ <u>Nick Tymchenko</u> Work Assignment Manager Phone Number | | ger | 04-14-2014 Date 215-814-2022 | | |
| Program Manager/Firm | | | | /s/ Claudette Reed 04-14-201 Project Officer Date Phone Number 215-814- | | | | |
| Approved As Ap Submitted Chang | | | | | | | | |

RAC II MODEL STATEMENT OF WORK FOR REMEDIAL INVESTIGATION/FEASIBILITY STUDY OVERSIGHT (RS)

Sauer Dump Site, Baltimore County, MD March 31, 2014

Contract No: EP-S3-07-05

Work Assignment/Task Order No: WA 055

Introduction

SITE DESCRIPTION

The Sauer Dump Site is located adjacent to Lynhurst Road in the North Point section of Baltimore ("Dundalk") in Baltimore County, Maryland. The Site is a former dump operated from approximately the 1960s through the 1990s, by Frederick Sauer ("Sauer"). The Site is a partially wooded lot, including wetlands and shore line along a bay. It is located in a residential neighborhood and partially bordered by wetlands and the Back River. The Site is composed of several properties. The Site was landfilled by the owner of an adjacent property, Frederick Sauer d/b/a North Point Trash Removal, in the 1960s, 1970s, and 1980s. Sauer used the Site as a salvage yard/dump/landfill in the 1960s, 1970s, and 1980s. The Site's historical usage as a salvage yard/dump/landfill operation resulted in the improper storage and disposal of hazardous substances and the consequent release of these hazardous substances into the environment.

PURPOSE

The purpose of this SOW is to amend task order WA 055 to conduct oversight of the potentially responsible parties (PRPs) remedial investigation/feasibility study (RI/FS). This SOW modifies **Risk Identification** and **Assessment Oversight** of the original SOW by requiring the contractor to procure analytical services for SVOCs, VOCs, inorganics, pesticides, PCB Aroclors. This SOW does not modify the completion date for this work assignment/task order.

GENERAL REQUIREMENTS

This is a term-form work assignment/task order that requires the contractor to provide oversight of the RI/FS as specified in the settlement agreement issued on March 11, 2013. Successful RI/FS oversight is accomplished by observing and documenting that the PRP has or has not complied with all applicable laws, regulations, and requirements, and has or has not met all performance standards specified in the settlement agreement. Furnish all necessary and appropriate personnel, materials, and services needed for, or incidental to, performing the oversight of the RI/FS in accordance with this SOW.

This SOW and accompanying work breakdown structure (WBS) is provided as a format for the contractor to structure its proposed approach and cost estimate. Use the WBS should be used in the cost estimate preparation and technical and cost tracking and reporting under this work assignment/task order.

In conducting the work assignment/task order, EPA expects the contractor to propose the most appropriate and cost-effective procedures and methodologies using accepted engineering practices and controls. Throughout the performance of this work assignment/task order, EPA expects the contractor to be responsible for performing services and providing products at the lowest reasonable cost. If the contractor fails to meet the requirements within the negotiated costs, the government may elect to provide the contractor with additional funds to complete the work assignment/task order without providing any additional fee. If there are changes to the SOW by the government, the government will issue a formal amendment to the SOW and negotiate the cost of the amendment with the contractor to form a new cost estimate.

A summary of the potential major deliverables and proposed schedule for submittals is in Attachment 1. This summary and schedule can be used as the basis for the contractor's proposed deliverables and schedules included in the work plan. Submit the major deliverables using the Transmittal of Documents for Acceptance by EPA Form. The EPA Work Assignment Manager (WAM)/Contracting Officer Representative (COR) will track deliverables submitted by the contractor using the Transmittal Register.

In all cases, the contractor shall use the most recently issued guidance.

Communicate at least weekly with the Work Assignment Manager (WAM)/Contracting Officer Representative (COR), either in face-to-face meetings or through conference calls. Document all decisions that are made in meetings and conversations with EPA. Forward this documentation to the WAM/COR within five working days of the meeting or conversation.

EPA will provide oversight of contractor activities throughout the RI/FS oversight. EPA review and approval of deliverables is a tool to assist this process and to satisfy, in part, EPA's responsibility to provide effective protection of public health, welfare, and the environment. EPA will review deliverables to assess the likelihood that the RI/FS will achieve its goals and that its performance and operations requirements have been met. Acceptance of deliverables by EPA does not relieve the RI/FS oversight contractor from responsibility for the adequacy of their deliverables or their professional responsibilities.

RECORD KEEPING REQUIREMENTS

Maintain all technical and financial records for the RI/FS oversight in accordance with the contract. At the completion of the work assignment/task order, submit an official record of the RI/FS oversight in both compact disk and a hardcopy to the WAM/COR. Provide the deliverables using electronic media.

USEPA PRIMARY CONTACTS

The primary contact for this work assignment/task order is Nick Tymchenko. He can be reached at:

(215)814-2022 or via e-mail at tymchenko.nick@epa.gov. His mailing address is: US EPA Region 3

Hazardous Site Cleanup Division (3HS22)

1650 Arch St. Philadelphia, PA 19103.

WA/TASK ORDER COMPLETION DATE AND PROJECT CLOSEOUT

At the completion of the work assignment/task order, perform all necessary project closeout activities as specified in the contract. These activities include closing out any subcontracts, indexing and consolidating project records and files as required above, and providing a technical and financial closeout report to EPA.

N/A RI/FS Oversight Work Planning

N/A WORK PLAN WBS: 1.1

Prepare and submit a RI/FS oversight work plan that includes a detailed description of implementation activities, performance monitoring, and overall management strategy, including optimization, for the RI/FS oversight. Typical activities involved in preparing the work plan include, but are not limited to, the following:

- Contacting the WAM/COR within five calendar days after receipt of the work assignment/task order to schedule the scoping meeting to be held at the U.S. EPA Region _ office in _______, _[City and State]. Regional personnel will be available to meet with the contractor 15-20 calendar days after the initial scoping meeting to discuss and clarify any issues the contractor may have regarding this project. Contact the WAM/COR to schedule this meeting at least five working days before the proposed meeting date.
- Conducting a site visit with the WAM/COR during the RI/FS oversight planning phase to assist in developing an understanding of the site and any logistics. [A site visit may not be necessary if the RI/FS oversight contractor is familiar with the site. If this is the case, delete this paragraph/bullet.]

Sauer Dump WA 055 analytical procurement

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- Preparing and submitting a final RI/FS oversight work plan within 30 calendar days after the scoping meeting. The work plan shall include a detailed description of the technical approach for the RI/FS oversight activities in accordance with the ______. Specify the necessary procedures, inspections, deliverables, and schedules. Include a comprehensive implementation management schedule for completion of each major activity and submittal.
- Preparing the estimated cost to complete the work assignment/task order, including subcontractor costs, for
 each element of the SOW; providing a breakdown of the cost by task and subtask levels, in accordance with
 the contract work breakdown structure (WBS).
- Negotiating and preparing a revised work plan, if the contractor fails to meet the Region's minimum standards. Note that EPA does not anticipate a need to re-negotiate with the contractor nor to require the contractor to revise the work plan. Contractor costs associated with the preparation of the revised work plan and cost estimate shall be paid by the government but shall not bear fee.
- Providing conflict of interest disclosure.

N/A SITE-SPECIFIC PLANS

WBS: 1.2

Review all existing site-specific plans and prepare, update, and/or maintain plans, as necessary, for RI/FS oversight implementation in accordance with applicable guidance. Incorporate the plans and procedures received from any subcontractor(s) into the overall site plans. Should the contractor fail to meet the required standards in accordance with the appropriate legal, regulatory, and EPA guidance, prepare revised site-specific plans. (NOTE: In that event, contractor costs associated with the preparation of the revised site-specific plans shall be paid by EPA but shall not bear fee.) Typical plans include, but are not limited to, the following:

- Sampling and Analysis Plan (SAP) in accordance with 40 CFR 300.415(b)(4)(ii).
- Field Sampling Plan (FSP) in accordance with 40 CFR 300.415(b)(4)(ii).
- Quality Assurance Project Plan (QAPP) in accordance with EPA Requirements for QA Project Plans (QA/R-5). Office of Environmental Information. EPA/240/B-01/003, March 2001.
- Site-specific Health and Safety Plan (HSP) that specifies employee training, protective equipment, medical surveillance requirements, standard operating procedures, and a contingency plan in accordance with 29 CFR 1910.120(l)(1) and (l)(2). NOTE: The PRP HSP may be modified for use if appropriate.

N/A PROJECT INITIATION

WBS: 1.4

Perform project initiation and support that will lead to the selection of a remedy that eliminates, reduces, or controls risks to human health and the environment. Typical activities include, but are not limited to, the following:

- Developing an EPA-approved laboratory quality assurance program that provides oversight of in-house and subcontracted laboratories through periodic performance evaluation sample analyses and/or on-site audits of operations and has a system of corrective actions to be used in cases where performance does not meet the standards of the program.
- Developing/reviewing qualifications of the laboratory for the given analytical requirements.
- Procuring, managing, and providing oversight of pool and team subcontracts for analytical services.
- Reviewing background documents when directed by EPA.
- Reviewing PRP Work Plan.
- Preparing Technical Memorandum and schedule for interface of Risk Assessment activities. Addressing data transfer from PRP; schedule contingencies.

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N/A Project Management and Reporting

N/A PROJECT MANAGEMENT -

WBS: 1.5

Perform activities required to effectively manage the work assignment/task order. These activities typically include, but are not limited to, the following:

- Monitoring costs and progress.
- Preparing and submitting monthly progress reports that document monthly and cumulative cost, performance status, and technical progress.
- Preparing and submitting monthly invoices in accordance with the level of detail as specified in the contract.
- Manage, track, and report status of site-specific equipment.
- Participating in meetings and preparing and submitting meeting summaries.
- Accommodating any external audit or review mechanism that EPA requires.
- Evaluating existing data, including usability, when directed by EPA.
- Coordinating with local and emergency response teams.
- Reviewing background documents as directed by EPA.
- Attending EPA-held training.

N/A COMMUNITY INVOLVEMENT (CR)

WBS: 2

Prepare and implement the Community Involvement Plan (CIP) for the site. Perform community involvement activities in support of EPA throughout the RI/FS oversight in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP, 40 CFR Part 300) and the Community Relations in Superfund - A Handbook, (U.S. EPA, Office of Emergency and Remedial Response, OSWER Directive No. 9230.0-3C, January 1992). [describe anticipated scope of community involvement activities for contractor budgeting purposes.] Community involvement tasks include, but are not limited to, the following:

- Conducting community interviews.
- Developing Community Involvement Plan (CIP).
- Providing public meeting and/or open house support.
- Preparing fact sheets, notices and other informational documents.
- Providing support for proposed plan.
- Providing public hearing support.
- Publishing public notices in local newspapers serving the site community.
- Maintaining public information repository.
- Developing and updating site mailing lists.
- Providing administrative and technical support for Responsiveness Summary.

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- · Preparing presentation materials.
- · Implementing other community involvement activities as identified by the site-specific CIP or EPA.
- Providing technical support to review Community Involvement deliverables and participate in public meetings.

Risk Identification and Assessment Oversight

FIELD INVESTIGATION/DATA ACQUISITION (FI)

WBS: 3

Provide technical field oversight for the purpose of documenting PRP performance of field work. Maintain and provide to EPA a logbook documenting field oversight. Typical activities include, but are not limited to, the following:

- Oversight and documentation of PRP field activities.
- Collection of split samples.
- Performance of sampling/screening/testing/assessment.
- Preparation of technical oversight reports.

SAMPLE ANALYSIS (SN)

WBS: 4

Analyze split samples taken to document and confirm PRP sampling results and performance. A variety of mechanisms may be used to implement this task including: contractor procured laboratory, field screening using mobile facilities or field portable equipment, the Contract Laboratory Program (CLP), laboratories procured under subpool or team subcontracts, the Regional Environmental Services Division (ESD), the Environmental Response Team (ERT) laboratory, or regionally procured laboratories. [NOTE: This task consists exclusively of performing sample analyses and producing analytical data. For cost estimating purposes, there should be no direct labor costs under this task - no hours should be reflected under this task, only dollars.]

ANALYTICAL SUPPORT AND DATA VALIDATION (AN)

WBS: 5

Schedule, coordinate, track, and oversee sample analyses and validate analytical data. Typical activities include, but are not limited to, the following:

- Collecting, preparing, and shipping environmental samples in accordance with the Field Sampling Plan (FSP). The following types of sampling shall be required:
 - Field screening
 - Ground water sampling
 - Surface and subsurface soil sampling
 - Surface water and sediment sampling
 - Air monitoring and sampling
 - Biota sampling
 - Other types of media sampling and screening
- Developing data quality objectives (DQO) for each sampling event; these DQOs shall be the determinative factor for assessing the success or failure of the sampling.
- Requesting, obtaining, and performing oversight of analytical services in compliance with EPA requirements.
- Contract for analysis of SVOC, Pesticides, PCB Aroclors, TAL metals plus tin as per Sauer Dump split sampling plan through a lab meeting EPA CLP Routine Analytical Services (RAS) Laboratory standards

- Contract for analysis as per Region 3 Analytical Request Forms dated 1/16/2014 of Sauer Dump Spilt Sampling for Groundwater, soil, sediments and water Some of the QLs for the metals, pesticides and SVOC are below routine QLs, laboratory shall be required to provide documentation indicating their ability to achieve these lower QLs. Documentation may include copies of their Method Detection Limit studies and/or calibration documentation with the low level standard successfully analyzed at a level equal to the project required QL. Any concentration detected below the lowest level standard analyzed and the MDL should be qualified "J-estimate" by the lab.
- Coordinating with the EPA Sample Management Office (SMO), the Regional Sample Control Coordinator (RSCC), and/or the Environmental Services Division (ESD) regarding analytical support, data validation, and quality assurance issues.
- Implementing the EPA-approved laboratory quality assurance program that provides oversight of in-house and subcontracted laboratories through periodic performance evaluation sample analyses and/or on-site audits of operations and has a system of corrective actions.
- Providing sample management including chain of custody procedures, information management, sample retention, and 10-year data storage.
- Performing data validation, the process by which the quality of the data, the defensibility of the data, and the chain of custody are verified. Performing data validation in accordance with Regional guidelines.
- · Reviewing data for usability for its intended purpose.
- Providing reports on data validation and usability. Coorrdinate with EPA Region 3 lab.

DATA EVALUATION (DE)

WBS: 6

Compile split sampling data and determine usability of all data collected. Prepare and submit a report summarizing split sample results. Include in the report a discussion of analytical results, a comparison of PRP sampling data with the split samples analyzed by EPA, and a discussion of any discrepancies.

N/A RISK ASSESSMENT (RA)

WBS: 7

Conduct baseline human health and ecological risk assessments. The objective of these assessments is to characterize and quantify, where appropriate, the current and potential human health and environmental risks that would prevail if no further remedial action is taken.

Risk Assessment must be done in accordance with applicable Agency guidance, directives and procedures.

N/A RI/FS Reports Oversight

TREATABILITY STUDY/PILOT TESTING (TT)

WBS: 8

Provide technical oversight of PRP Treatability Study/Pilot Testing. Typical activities include, but are not limited to, the following:

- Reviewing PRP work plan for Treatability Study/Pilot Test.
- · Split Sampling.
- Oversight of Treatability Study/Pilot Test activities.
- Preparation of Technical Memorandum.

N/A REMEDIAL INVESTIGATION REPORT (RR)

WBS: 9

Sauer Dump WA 055 analytical procurement

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Review the PRP's Remedial Investigation (RI) report. Perform a technical review to ensure that the report accurately establishes the site characteristics such as media contaminated, extent of contamination, and the physical boundaries of the contamination. Identify data gaps that are important for the Human Health and Ecological Risk Assessments and the Feasibility Study. Provide comments in the form of a technical memorandum within days of receipt of the PRP's document.

N/A REMEDIAL ALTERNATIVES SCREENING (RS)

WBS: 10

Review the PRP identification and screening of technologies and alternatives for technical adequacy. This review shall include the identification of technologies considered feasible but not addressed by the PRP. Review and comment whether the PRPs have followed screening procedures outlined in the NCP, 40 CFR part 300 and applicable Agency guidance, procedures and directives.

N/A REMEDIAL ALTERNATIVES EVALUATION (RE)

WBS: 11

Review the PRP evaluation of remedial alternatives. Comment whether the PRPs have followed evaluation procedures as outlined in the National Contingency Plan (NCP), 40 CFR Part 300 and the Guidance for Conducting RI/FS under CERCLA (OSWER Directive 9355.3-01). Provide a technical review of the PRP evaluation.

N/A FEASIBILITY STUDY REPORT (FS)

WBS: 12

Review the PRP's Feasibility Study (FS) report to ensure the report is consist with requirements of NCP, settlement agreement, and ARARs, and contains the following components:

- Feasibility Study Objectives.
- · Remedial Objective.
- General Response Action.
- · Screened Remedial Technologies.
- Remedial Alternatives.
- Detail Analysis of Remedial Alternatives.
- Summary and Conclusions.

Provide comment(s) in the form of a technical memorandum within __ days of receipt of the PRP's feasibility study report.

N/A POST RI/FS SUPPORT (PR)

WBS: 13

Provide support required for preparation of the ROD for the site. The final recommendation contained in the ROD shall represent the opinion and recommendation of EPA not that of the contractor. Typical activities include, but are not limited to, the following:

- Attending technical meetings, public meetings, briefings, public hearings.
- Providing technical assistance in the preparation of the Record of Decision (ROD).
- Reviewing PRP Feasibility Study (FS) Addendum.
- Providing technical assistance in the preparation of the Responsiveness Summary.

N/A ADMINISTRATIVE RECORD (AR)

WBS: 14

Sauer Dump WA 055 analytical procurement

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Produce the Administrative Record. Typical activities include, but are not limited to, the following:

- Attending meetings with EPA WAM/COR, Site Attorney, and Administrative Record Coordinator.
- Providing assistance in compiling documents comprising of the Administrative Record File in accordance with EPA Regional guidance or other procedures as specified.
- Preparing Draft Administrative Record Index in accordance with EPA Regional guidance or other procedures as specified.
- Preparing Administrative Record Index.
- Coordinating duplication of Administrative Record.
- Assembling Administrative Record and Index.

N/A WORK ASSIGNMENT/TASK ORDER CLOSEOUT (CO)

WBS: 15

Perform the necessary activities to close out the work assignment/task order in accordance with contract requirements. Typical activities include but are not limited to, the following:

- Packaging and returning documents to the government.
- Duplicating/distribution/storage of files.

Attachment 1 - Summary of Major Submittals for the RI/FS Oversight at Sauer Dump (Site)

| 1 | NO. OF | DUE DATE | EPA REVIEW |
|--------------------------|--------|-----------------------------------------|------------|
| | COPIES | (calendar days) | PERIOD |
| Monthly Progress Reports | 3 | Monthly and as required in the contract | NA |

| AMENDMI | ENT OF SOLICITATION/MODIFIC | ATION OF CONTRACT | | CONTRACT ID CODE | PAGE 1 | OF PAGES |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------------------------------------------|-----------------------------------------|---------------------|
| 2. AMENDME | ENT/MODIFICATION NO. | 3. EFFECTIVE DATE | 4. 1 | L REQUISITION/PURCHASE REQ. NO. | | NO. (If applicable) |
| 0272 | | See Block 16C | PR | -R3-14-00200 | | |
| 6. ISSUED B | Y CODE | R3 | 7. | ADMINISTERED BY (If other than Item 6) | CODE | |
| 1650 AF | 3 RONMENTAL PROTECTION RCH STREET LIPHIA PA 19103-2029 | AGENCY | | | | |
| 8. NAME AND | D ADDRESS OF CONTRACTOR (No., street | county, State and ZIP Code) | (54) | 9A. AMENDMENT OF SOLICITATION NO. | | |
| | | ,, | (X) | | | |
| 11107 S | OLOGIC INC UNSET HILLS ROAD SUITE VA 20190-5309 | 2 400 | | 9B. DATED (SEE ITEM 11) | | |
| | | | x | 10A. MODIFICATION OF CONTRACT/ORDER N EP-S3-07-05 | iO. | |
| | | | | 10B. DATED (SEE ITEM 13) | ANTONO TO THE RESERVE OF THE STREET | |
| CODE 19 | 93942604 | FACILITY CODE | | 06/28/2007 | | |
| | numbered solicitation is amended as set fo | 11. THIS ITEM ONLY APPLIES TO A | | | nded. 🗆 is no | |
| THE PLAC virtue of thi to the solici | E DESIGNATED FOR THE RECEIPT OF C s amendment you desire to change an offer tation and this amendment, and is received TING AND APPROPRIATION DATA (If req ledule | DFFERS PRIOR TO THE HOUR AND D. r already submitted, such change may be prior to the opening hour and date specuired) Net | ATE e ma dified | | OUR OFFER. In our letter makes response | of by eference |
| | 13. THIS TIEM ONLY APPLIES TO WA | DDIFICATION OF CONTRACTS/ORDER | .5. 1 | i Modifies the Contract/Order No. As De | SCKIBED IN II | EW 14. |
| CHECK ONE | A. THIS CHANGE ORDER IS ISSUED P ORDER NO. IN ITEM 10A. | URSUANT TO: (Specify authority) THE | CH | ANGES SET FORTH IN ITEM 14 ARE MADE IN T | HE CONTRAC | T |
| | B. THE ABOVE NUMBERED CONTRAC appropriation date, etc.) SET FORTH | T/ORDER IS MODIFIED TO REFLECT IN ITEM 14, PURSUANT TO THE AUT | THE | ADMINISTRATIVE CHANGES (such as changes IITY OF FAR 43.103(b). | in paying office | 9, |
| | C. THIS SUPPLEMENTAL AGREEMEN | T IS ENTERED INTO PURSUANT TO A | UTH | ORITY OF: | | |
| | D. OTHER (Specify type of modification of | and authority) | | i | | |
| Х | B.2, Work Assignment | ** | n | of Funds | | |
| E. IMPORTAN | | is required to sign this document and | | | a office. | |
| | | | | ng solicitation/contract subject matter where feasi | - | |
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| See Ite | m 14 Continuation on p | page three (3) | | | | |
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| Continue | | | | // | | |
| | vided herein, all terms and conditions of the ND TITLE OF SIGNER (Type or print) | e document referenced in Item 9A or 10A | | heretofore changed, remains unchanged and in f | | |
| | | | | 1 Pinero | | ····· · |
| 15B CONTRA | ACTOR/OFFEROR | 15C. DATE SIGNED | | BB.UNITED STATES OF AMERICA | | 16C. DATÉ SIGNED |
| .us. ounity | , | 100. DATE SIGNED | ' | V X X V V V V V V V V V V V V V V V V V | | 105. DATE GIGNED |
| | (Signature of person authorized to sign) | _ | | (Signature of Contracting Officer) | | 1411114 |
| NSN 7540-01- | -152-8070 | | | s | | RM 30 (REV. 10-83) |
| Previous edition | on unusable | | | | rescribed by GS AR (48 CFR) 5 | |

| CONTINUE TION OFFEET | | PAGE O | F |
|----------------------|------------------|--------|---|
| CONTINUATION SHEET | EP-S3-07-05/0272 | 2 | 7 |

NAME OF OFFEROR OR CONTRACTOR HYDROGEOLOGIC INC

| ITEM NO. (A) | SUPPLIES/SERVICES | QUANTITY (C) | UNIT (D) | UNIT PRICE (E) | AMOUNT (F) |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------|-------------------|---------------|
| (A) | (B) | (0) | (D) | (E) | (f) |
| | Payment: RTP FINANCE CENTER US ENVIRONMENTAL PROTECTION AGENCY RTP-FINANCE CENTER D143-02 109 TW ALEXANDER DRIVE DURHAM NC 27711 | | | | |
| | Add Item 0051 as follows: | | | | |
| 0051 | Add special account funds for Technical Assistance activities at the Bendix Flight System Division SF Site (03H7) under RACs Contract EPS30705, HGL. Obligated Amount: \$53,124.00 | | | | 53,124.0 |
| | Accounting Info: 14-TR2B-03S0XH7-303DD2-2505-C001-1403SK1030-001 BFY: 14 Fund: TR2B Budget Org: 03S0XH7 Program (PRC): 303DD2 Budget (BOC): 2505 Job #: 03H7TA01 Cost: C001 DCN - Line ID: 1403SK1030-001 Funding Flag: Partial Funded: \$53,124.00 | | | | |
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Modification 272

Item 14 Continuation

- 1. The purpose of this modification is to obligate funds and issue Revision 8 to Work Assignment 033TATA03H7.
- 2. Section B, Paragraph B.6, Limitation of Funds Notice (EP 52.232-100) is modified as follows:

| Term Form Segment | Contract Funding Thru MOD 271 | Funding Changes | Current Funding |
|---------------------------|----------------------------------|-----------------|-----------------|
| Estimated Cost | Exem | ption | (b) (4) |
| Fixed Fee | | - | 1 |
| Total Cost Plus Fixed Fee | \$30,597,551.3 | \$53,123.00 | \$30,650,674.3 |

| | EPA WORK ASS | SIGNMENT FO | RM (V | VAF) FOR RA | AC | | |
|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|----------------------------------------|------------------------------------------|----------------------------------------------------------|
| 1. WORK ASSIGNMEN | T (WA) INFORMATION | | | | | | |
| Project Name: Bendix Activity: Technical As Date: 04-17-14 | Flight Systems Division – OU | EPA Contra | act No. <u>EP</u> | | Revision | 033TATA03H7 No.:8 (Eight) tion No.:272 | |
| (Contracting Officer Use C | Only) | | | <u> </u> | | | |
| 2. DESCRIPTION OF A | CTION | 1 | | I | | | |
| New WA (need WP for the WA) . Attach SOW including schedule . Designate WAM | WA Amendment (need revised WP and/or cost estimate) . Change in LOE or scope by task . Add additional tasks or funds for increased activity | Partial WP Approva Final WP Approva Final WP Approval to Final WP Approval Approve change in scope, or budget Approve additional | l oval endment n LOE, | Technical Dire | , budget, or in SOW LOE) | | WP at Notification tor to initiate WA er final invoice |
| 3. BUDGET INFORMA | rion | | | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | |
| Completion WA X | _Term WA | Approved ' | Work Plan I | Budget | Expen | diture Limits Not | to Be Exceeded |
| Total Funding Receive | ed (\$) | LOE Term WAs Only | | (\$)* | LOE Term WAs o | nly | (\$)* |
| Previous Total0 | | 1318 | _1 | 53,790 | 1278 | | 149,790 |
| This Action53,123 | 1 | 455 | 5 | 3,123 | 455 | | 53,123 |
| New Total 53,123 | i | 1773* | _2 Includes fee | <u>06,913</u> | 1733 * Includes fe | | 202,913 |
| Funding Category:Site | -Specific Funding | | 111014403 100 | | morados re | | |
| Activity Code: TA S | /SID: <u>03H7</u> | | | | | | |
| 4. WA COMPLETION I | DATE Current: 12-3 | 1-2014 | Revi | sed: | | | |
| 5. EPA COMMENTS: | | | | | | | |
| hours, the contractor is re this must be noted on the | endment is being issued on a equired to return a signed co work assignment form. endment directs the contrac | py of the work assignn | ient form v | vithin 5 working day | ys after receip | t. If the contract | or does not concur, |
| 6. APPROVALS | | | | | | | |
| Contractor Signatures: | | | EPA Sig | gnatures: | | | |
| Site Manager/Firm | · | Date | | ua Barber ssignment Manager | | 04-17-201 Date | 4 |
| Program Manager/Firm | | Date | | dette Reed ect Officer | | 04-17-2 Date | <u>014</u> |
| X Approved As A A Submitted Change | pproved With Not es Approved | Signatu | re of Contra | acting Officer, | ngganatawakin na na n | 4(17) | / L Date |

Remedial Action Contract – EPA Region 3 EPA Contract No. EP-S3-07-05 EPA Work Assignment No. 033TATA03H7

Scope of Work (SOW) Amendment

The purpose of this SOW amendment is to add the following new subtasks to Task 2 – Expert Technical Assistance, of the subject work assignment:

1. Provide unilateral direction and modification to the work assignment scope for the contractor to develop a quality assurance project plan QAPP, field sampling plan (FSP) and conduct groundwater sampling concurrent with the potentially responsible party (PRP) contractor's annual monitoring event which is anticipated to take place in April – May 2014.

and,

2. Modify the scope of work for the contractor to develop a work plan and cost estimate for compilation and evaluation of existing data for the Bendix Flight System Div. Superfund Site (Site), the development of a conceptual site model (CSM), development of a data gap analysis for the Site, presentation of the CSM and data gap analysis findings, and collection of additional Site samples, as necessary.

Subtask 1 - 2014 Groundwater Sampling Task

Currently, the PRP for the Site, Honeywell, and their contractor, AMEC, are utilizing permeable diffusion bags (PDBs) for all of the groundwater samples that are collected from the glacial till and bedrock aquifers. These purpose of this sampling is to evaluate the performance of the Site remedy with additional use for the ongoing Supplemental Site Evaluation (SSI). EPA has requested that the PDB sampling be discontinued and a traditional method of groundwater sampling be employed for the annual monitoring. At this time, the PRP and contractor are refusing this request. EPA is providing unilateral direction to the EPA RACs contractor to conduct groundwater samples from the Site monitoring wells concurrent with the PRP's annual groundwater sampling event which is expected to occur in April and/or May 2014.

Subtask 1.1 – QAPP/FSP Development

The RACs contractor shall develop a QAPP and FSP that will support the objectives of collecting groundwater samples at the Site for volatile organic compound (VOC) analysis and any other analyses that may be identified. Groundwater samples shall be collected using a method(s) deemed acceptable by EPA to provide representative samples of the groundwater conditions within each monitoring well. Data collected from these samples will be used for evaluation of Site conditions as well as for comparison to

the sample results from the PRP PDB samples. As such, more than one sampling method may be utilized as there are both open borehole, completed monitoring wells, sumps and a groundwater collection present on Site that require sampling.

All wells sampled by the PRP contractor shall be sampled by the RACs contractor. In addition, EPA may identify additional wells for sampling. These wells may have not been sampled in several years and may require development prior to sampling. It should be assumed that 40 monitoring wells, 3 sumps and the groundwater collection trench will be sampled. The analytical method utilized by the PRP contractor for sample analysis or an acceptable comparable method (as approved by EPA's Ft. Meade laboratory) shall be used for analysis of the EPA samples.

Subtask 1.2 – HASP Development

The existing RACs contractor Health and Safety Plan (HASP) for the Site shall be revised to accommodate these additional sampling activities and any activities, as appropriate, under Task 2 below.

Subtask 1.3 – Groundwater Sampling

The RACs contractor shall conduct groundwater sampling consistent with the QAPP/FSP to be developed. Groundwater sampling should be concurrent with the PRP contractor's collection of samples from the PDB samplers or as soon as possible thereafter. Prior to groundwater sampling, the RACs contractor shall make arrangements with EPA's analytical services group or other EPA laboratory (if necessary) to obtain a laboratory for sample analysis. Two field staff are required for the sampling. Groundwater sampling is assumed to last 20 days, assuming 10 hour work days and 2 field staff.

Subtask 1.4 – IDW Management

All Investigation derived waste (IDW) shall be containerized on-site, characterized and disposed of appropriately by the RACs contractor. IDW shall be managed in manner consistent with the appropriate regulations. It is assumed that IDW will be managed with the same approach used by the PRP contractor.

Subtask 2 – CSM Development and Data Gap Analysis

Both EPA and HGL have documented numerous issues with Site data, the PRP/Contractor conceptual site model (CSM), sampling methodologies for long-term monitoring of the current remedy as well as other issues. The RACs contractor is being tasked to compile the Site's historical data (including data collected as part of Task 1 above), develop a CSM for the Site, perform a data gap analysis and, if necessary collect additional samples. The RACs contractor shall develop a work plan and cost estimate for the activities described in the substasks below.

Subtask 2.1 – Review Historical Site Documents

The RACs contractor shall review all relevant historical Site documents to assess how the CSM for the Site has evolved over time and to support the development of the EPA CSM. Relevant documents will be provided by EPA or shall be requested from the PRP and/or their contractor.

Subtask 2.2 – Data Compilation and Evaluation

The RACs contractor shall obtain and review all historical and current Site data provided by the PRP and/or their contractor. At this time, it is not clear if the PRP and/or their contractor maintain one large Site database that includes historic data from previous PRPs or contractors. Manual entry of data from historical data may be warranted. The RACs contractor shall construct a Site database utilizing the EPA Region 2 Electronic Data Deliverable (EDD) format (http://www.epa.gov/region02/superfund/medd.htm) and ensure the database is compatible with EQuIS. The EQuIS database shall be reviewed for completeness.

Sample results obtained from the 2014 concurrent annual sampling shall be compared to the results provided by the PRP and evaluated to support a determination regarding the appropriate sampling method(s) for the Site.

Subtask 2.3 – CSM Development

The RACs contractor shall utilize all available Site data, as appropriate, to develop a CSM for the Bendix Site. The CSM should include a textual description of the Site conditions, nature and extent of contamination, fate and transport of contaminants and evaluation of potential current or future receptors. Maps, figures and cross-sections should be developed for the Site to demonstrate and compliment the textual CSM description. Modelling and/or 3-D visualizations of some or all of the CSM may also be warranted.

Subtask 2.4 – Data Gap Analysis

The RACs contractor shall utilize the available Site data and CSM to detail any data gaps that must be addressed to complete the CSM. The RACs contractor shall also develop proposed overall field approach for address the identified data gaps.

| AMENDMENT OF SOLICITATION/MODIFIC | ATION OF CONTRACT | 1, CONTRACT ID CODE | PAGE OF PAGES |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| | | TA DESCRIPTION/DURSCLASS DESCRIPTION | 1 20 5. PROJECT NO. (If applicable) |
| 2. AMENDMENT/MODIFICATION NO. | 3. EFFECTIVE DATE | 4, REQUISITION/PURCHASE REQ. NO. | 5. PROJECT NO. (II applicable) |
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| REGION 3 US ENVIRONMENTAL PROTECTION 1650 ARCH STREET PHILADELPHIA PA 19103-2029 | | | |
| 8. NAME AND ADDRESS OF CONTRACTOR (No., street | t, county, State and ZIP Code) | (x) 9A. AMENDMENT OF SOLICITATION NO. | |
| HYDROGEOLOGIC INC 11107 SUNSET HILLS ROAD SUIT RESTON VA 20190-5309 | E 400 | 9B. DATED (SEE ITEM 11) x 10A. MODIFICATION OF CONTRACT/ORDER EP-S3-07-05 | ₹ NO. |
| | | 10B, DATED (SEE ITEM 13) | |
| CODE 193942604 | FACILITY CODE | 06/28/2007 | |
| | 11. THIS ITEM ONLY APPLIES T | O AMENDMENTS OF SOLICITATIONS | |
| virtue of this amendment you desire to change an offeto the solicitation and this amendment, and is received 12. ACCOUNTING AND APPROPRIATION DATA (If received See Schedule 13. THIS ITEM ONLY APPLIES TO M CHECK ONE A. THIS CHANGE ORDER IS ISSUED FORDER NO. IN ITEM 10A. | or already submitted, such change mad prior to the opening hour and date squired) ODIFICATION OF CONTRACTS/ORD PURSUANT TO: (Specify authority) T | D DATE SPECIFIED MAY RESULT IN REJECTION OF by be made by telegram or letter, provided each telegram pecified. DERS. IT MODIFIES THE CONTRACT/ORDER NO. AS IN THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN CONTRACT/ORDER NO. AS IN THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN CONTRACT/ORDER NO. AS IN THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN CONTRACT/ORDER NO. AS IN THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN CONTRACT/ORDER NO. AS IN THE CHANGES (Such as change NUTHORITY OF FAR 43.103(b). | DESCRIBED IN ITEM 14. |
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| D. OTHER (Specify type of modification | | | |
| X B.2, Work Assignment | is required to sign this document | and return 0 copies to the issu | ling office |
| 14.DESCRIPTION OF AMENDMENT/MODIFICATION DUNS Number: 193942604 The purpose of this modifica | (Organized by UCF section headings | , including solicitation/contract subject matter where fea | asible.) |
| Revision 1 to Work Assignmen | C UJSKICOESUS. | | |
| Except as provided herein, all terms and conditions of the | ne document referenced in Item 9A or | 10A, as heretofore changed, remains unchanged and in | n full force and effect. |
| 15A. NAME AND TITLE OF SIGNER (Type or print) | | 16A NAME AND TITLE OF CONTRACTING OF | |
| 15B. CONTRACTOR/OFFEROR | 15C. DATE SIGNED | | 16C. DATE SIGNED |
| (Signature of person authorized to sign) | | (Signature of Contracting Officer) | STANDARD FORM 30 (REV. 10-83) |
| NSN 7540-01-152-8070 Previous edition unusable | | 1 | Prescribed by GSA FAR (48 CFR) 53.243 |

Page 1 of 20

| EPA WORK ASSIGNMENT FORM (WAF) FOR RAC | | | | | | |
|----------------------------------------|--------------------------------|--------------------------|-----------------------------------------|------------------|----------------------------------|--|
| 1. WORK ASSIGNMENT | T (WA) INFORMATION | | | | | |
| Project Name:Jackson | Ceramics, Inc. Con | tractor: HGL | v | VA No.: 00 | 6RICO032C | |
| Activity: RI/FS | EP/ | A Contract No. EP | -\$3-07-05 | Revis | sion No.: 38 (Thirty-Eight) | |
| Date: 04-22-2014 | Cor | ntractor Control No | | Modification No | .:273 | |
| | | | | (Contracting Of | ficer Use Only) | |
| 2. DESCRIPTION OF A | CTION | | | | | |
| _ New WA | WA Amendment | Partial WP Appr | roval Technical | Direction | Incremental Funding | |
| (need WP for the WA) | (need revised WP and/or | WP Disapproval | Memorano | mut | . Fund approved WP | |
| . Attach SOW | cost estimate) | Final WP Appro | val . Details on sco | ope, budget, | WA Closeout Notification | |
| including schedule | . Change in LOE or | _X_ Unilateral | or schedule | | . Notify contractor to initiate | |
| . Designate WAM | scope by task | Amendment to Final | . Minor shift wit | thin SOW | WA closeout task | |
| | . Add additional tasks or | WP Approval | (no change in | \$/LOE) | . Revise EL after final invoice | |
| | funds for increased | . Approve change in | LOE, . Change WAM | l | Other | |
| | activity | scope, or budget | _X_ Set or re | evise | | |
| | | . Approve additional | tasks expenditure limit | it (EL) | | |
| 3. BUDGET INFORMAT | ION | | | | | |
| Completion WA | X Term WA | Approved Wo | rk Plan Budget | Expendit | ure Limits Not to Be Exceeded | |
| Total F | unding Received (\$) | LOE | (\$)* | LOE | (\$)* | |
| Previous Total | | Term WA | s Only | | Term WAs only | |
| This Action | | 17,189 | 2,812,971 | 17,182 | 2,688,658 | |
| New Total | | 6,983 | 0 | 6,983 | | |
| | 9 | 24,172 | 2,812,971 | 24,165 | 2,688,658 | |
| Funding Category:Bu | lk Funding | * Includes fees | | * Includes f | ees | |
| Activity Code: RICO | S/SID: <u>032C</u> | | | | | |
| | | | | | | |
| 4. WA COMPLETION D | ATE Current: C | 6-30-2015 | Revised:_ | 03-31-2016 | | |
| 5. EPA COMMENTS: | | | 7/2 | | | |
| | pendment is being issued on a | unilateral hasis in acco | ordance with the contract. | If the contracto | or concurs with the cost and LOE | |
| | equired to return a signed cop | | | | | |
| | ed on the work assignment for | | nt lotti waliii 5 wollang a | ayo altor receip | | |
| concur, this must be note | ed on the work assignment for | ···· | | | | |
| This Work Assignment ar | mendment extends the period | of performance and add | s LOF hours to complete | the tasks remai | ning on the work assignment. | |
| This Work Assignment at | Hendinent extends the penod | or performance and add | S EOL HOUSE to Complete | | g | |
| | | | | | | |
| 6. APPROVALS | | | | | | |
| Contractor Signatures: | | <u>*</u> | Rashmi Mathur | | 04-22-2014 | |
| Contractor Oignatures. | | 1 | Work Assignment Manage | er | Date | |
| Site Manager/Firm | | Date | Claudette Reed | | 04-22-2014 | |
| Cito managor/ i iiiii | | | Project Officer | | Date | |
| Program Manager/Firm | - | Date | 11/10 | | 7 | |
| | | | 111111111111111111111111111111111111111 | | | |
| Approved As X Ap | proved With Not | | MAM | / | 3/1/14 | |
| | · | · | Signature of Contracting O | fficer | Date | |
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| | EPA WORK A | SSIGNMENT F | DRM (WAF |) FOR I | RAC |
|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. WORK ASSIGNMEN | T (WA) INFORMATION | | | | |
| Project Name:Dwyer - Activity:RIFS Date:04-25-2014 | EPA | ntractor: HGL Contract No. EP-S3-07 ntractor Control No. | 05 Re | evision No.: | 59RICOE309 1 (One) : 273 fficer Use Only) |
| 2. DESCRIPTION OF A | CTION | | | | |
| New WA (need WP for the WA) . Attach SOW including schedule . Designate WAM | X WA Amendment (need revised WP and/or cost estimate) . Change in LOE or scope by task . Add additional tasks or funds for increased activity | Partial WP Approval WP Disapproval Final WP Approval Amendment to Final WP Approval Approve change in LOE, scope, or budget Approve additional tasks | Technical E Memorandu Details on scop or schedule Minor shift with (no change in Change WAM Set or revise expenditure limit | um pe, budget, in SOW \$/LOE) | Incremental Funding . Fund approved WP WA Closeout Notification . Notify contractor to initiate WA closeout task . Revise EL after final invoice Other |
| 3. BUDGET INFORMAT | ION | | <u> </u> | | |
| | unding Received (\$) | Approved Work Pla LOE Term WAs Only 100 0 100 * Includes fees | (\$)* | LOE | 0 0 10,000 |
| 4. WA COMPLETION D | ATE Current: | 12-30-2016 | Revised: | | |
| | WP/Cost Estimate in accorda | ance with the attached SOW. | | | |
| 6. APPROVALS | | | | [4] | _ |
| Contractor Signatures: Site Manager/Firm | | Date Work | t Wallace Assignment Manager ette Reed t Officer | / | 04-25-2014 Date 04-25-2014 Date |
| · | pproved WithNot | Date | are of Contracting Offi | icer | 5/1/4 Date |

RAC II NATIONAL MODEL STATEMENT OF WORK FOR REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS) Dwyer Groundwater Plume, Elkton, MD

Contract No:

EP-S3-07-05

Work Assignment/Task Order No: 059-RICO-E309

Introduction

PURPOSE

The purpose of this work assignment/task order is to conduct a remedial investigation/ feasibility study (RI/FS) at Dwyer Property Groundwater Plume Site to select a remedy that eliminates, reduces, or controls risks to human health and the environment.

Hydrogeologic, Inc. (HGL) has previously prepared a Data Gap Summary (HGL, November 2012), which was later modified into a RI Work Plan, Sampling and Analysis Plan; and Cost Estimate (HGL, August 2013) that would be implemented by the Potentially Responsible Parties. However, in September 2013, EPA determined that the RI/FS for the Dwyer Property Groundwater Plume Site would be performed under EPA-lead. Therefore, EPA requests that HGL modify the previous RI Work Plan (HGL, August 2013) into an RI/FS Work Plan, Sampling and Analysis Plan; Health and Safety Plan, Quality Assurance Project Plan (QAPP) and Cost Estimate.

This statement of work (SOW) sets forth the framework and requirements for this effort. The goal is to develop the minimum amount of data necessary to support the selection an approach for site remediation and then to use this data to result in a well-supported Record of Decision (ROD). The estimated completion date for this work assignment/task order is September 30, 2016.

SITE DESCRIPTION

The Dwyer Property Groundwater Plume site is located north of the intersection of Maryland Route 545 (Blue Ball Road) and Maryland Route 279 (Elkton Road), in Elkton, Cecil County, Maryland. The site is located in the area of former explosives manufacturing facilities known as Triumph Explosives and Aerial Products. This company manufactured products for the military. It has been inactive since 1972, and is currently abandoned and overgrown. The site consists of a two distinct groundwater plumes contaminated with volatile organic compounds (VOCs). A specific source of the VOCs in the northern plume has been identified on the property; however, a specific source for the southwestern plume has not been identified. The VOC plumes were initially identified by the Maryland Department of the Environment (MDE). MDE has performed a number of investigations at the site to try to determine the potential sources and extent of the plume.

Current Site Status

The Dwyer Property Groundwater Plume was proposed to the National Priorities List on October 21, 2010. The site became final on the NPL in March of 2011. A public availability session was held on March 30, 2011 at the Elkton High School.

In November 2011, residential well samples were collected at houses located near the Site by the EPA Emergency Response Personnel. Soil, groundwater and soil gas samples were also collected near the Rudy Park Public Housing units. Results from samples collected from 55-gallon drums in the summer of 2012 did not indicate disposal of hazardous substances. In the Fall of 2012 a unexploded ordnance survey (UXO) was conducted by EPA personnel in an area of the Site used for waste disposal. The survey did not reveal the presence of UXO.

Threats and Contaminants

The groundwater has been contaminated with volatile organic compounds (VOCs), mainly trichloroethylene (TCE). Other groundwater contaminants include PCE, cis-1,2-DCE, 1,1-DCE, 1,1,2,2-TCA, 1,2-dibromomethane, carbon tetrachloride, naphthalene, vinyl chloride and perchlorate. Exposure to contaminated groundwater and/or indoor vapor potentially poses a threat to human health. Contaminant descriptions and risk factors are available from the Agency for Toxic Substances and Disease Registry, an arm of the CDC.

Cleanup Progress

MDE first became involved at the site as a result of a real estate transaction. As part of a Preliminary Assessment, three wells were installed. Analytical results of groundwater indicated high concentrations of chlorinated volatiles in the parts per million range.

Successive investigations by MDE in the mid 1990s to 2005 expanded the areas of contamination. The MDE investigations primarily focused on TCE in groundwater. In March 2010, MDE performed an expanded remedial investigation (ERI) that discovered a dense non-aqueous chlorinated solvents (DNAPL) source composed mainly of TCE.

During successive investigations, MDE has installed a total of 74 monitoring wells, 12 piezometers, 36 soil borings and 5 stream gauging stations. In addition, a soil vapor survey and multiple ground water sampling events were conducted.

GENERAL REQUIREMENTS

This is a term-form work assignment/task order that requires the contractor to develop a well-supported ROD that when implemented through a remedial action will eliminate, reduce or control risks to human health and the environment. Furnish all necessary and appropriate personnel, materials, and services needed for, or incidental to, performing and completing the RI/FS in accordance with the requirements of this SOW.

This SOW and accompanying work breakdown structure (WBS) is provided as a format for the contractor to structure its proposed approach and cost estimate. Use the WBS in cost

RAC II Model RI/FS SOW November 2002

estimate preparation and technical and cost tracking and reporting under this work assignment/task order.

In conducting the work assignment/task order, EPA expects the contractor to propose and implement the most appropriate and cost-effective procedures and methodologies using accepted engineering practices and controls. Throughout the performance of this work assignment/task order, EPA expects the contractor to be responsible for performing services and providing products at the lowest reasonable cost. If the contractor fails to meet the requirements within the negotiated costs, the government may elect to provide the contractor with additional funds to complete the work assignment/task order without providing any additional fee. If there are changes to the SOW by the government, the government will issue a formal amendment to the SOW and negotiate the cost of the amendment with the contractor to form a new cost estimate.

A summary of the potential major deliverables and proposed schedule for submittals is in Attachment 1. This summary and schedule can be used as the basis for the contractor=s proposed deliverables and schedules included in the work plan. Submit the major deliverables using the Transmittal of Documents for Acceptance by EPA Form. The EPA Work Assignment Manager (WAM)/Contracting Officer Representative (COR) will track deliverables submitted by the contractor using the Transmittal Register.

In all cases, the contractor shall use the most recently issued guidance.

Communicate at least weekly with the EPA WAM/COR, either in face-to-face meetings or through conference calls. Document all decisions that are made in meetings and conversations with EPA. Forward this documentation to the WAM/COR within five working days of the meeting or conversation.

EPA provides oversight of contractor activities throughout the RI/FS. EPA review and approval of deliverables is a tool to assist this process and to satisfy, in part, EPA's responsibility to provide effective protection of public health, welfare, and the environment. EPA also reviews deliverables to assess the likelihood that the RI/FS achieves its goals and that its performance and operations requirements have been met. Acceptance of deliverables by EPA does not relieve the RI/FS contractor from responsibility for the adequacy of the deliverables or its professional responsibilities.

RECORD KEEPING REQUIREMENTS

Maintain all technical and financial records for the RI/FS in accordance with the contract. At the completion of the work assignment/task order, submit an official record of the RI/FS in both compact disk and a hardcopy to the WAM/COR. Provide the deliverables using electronic media.

USEPA PRIMARY CONTACTS

The USEPA primary contact for this work assignment/task order is Robert Wallace, the WAM/COR who can be contacted at (215) 814-3278, Fax. (215) 814-3002, Internet Address:

wallace.robert@epa.gov. The secondary contact for this work assignment/task order is Kristine Matzko who can be contacted at (215) 814-5719, Fax. (215) 814-3002, Internet Address: matzko.kristine@epa.gov. The mailing address is: EPA Region 3, Hazardous Site Cleanup Division, 1650 Arch Street, Philadelphia, PA 19103-2029. The mail code is: 3HS22.

WA/TASK ORDER COMPLETION DATE AND PROJECT CLOSEOUT

At the completion of the work assignment/task order, perform all necessary project closeout activities as specified in the contract. These activities include closing out any subcontracts, indexing and consolidating project records and files as required above, and providing a technical and financial closeout report to EPA. The goal is to complete all technical activities and closeout activities for this work assignment/task order by September 30, 2016.

RI/FS Work Planning

This work element involves planning for the execution and overall management of this work assignment/task order. The technical and managerial activities required to implement the RI/FS and the associated costs shall be developed during the planning phase and detailed in the RI/FS work plan and cost estimate.

WORK PLAN WBS: 1.1

Prepare and submit a RI/FS work plan that includes a detailed description of implementation activities, performance monitoring, and overall management strategy, including optimization, for the RI/FS. Typical activities involved in preparing the work plan include, but are not limited to, the following:

- Contacting the Work Assignment Manager (WAM)/Contracting Officer Representative (COR) within five calendar days after receipt of the work assignment/task order to schedule the scoping meeting to be held at the U.S. EPA Region 3 office in Philadelphia, Pennsylvania. Regional personnel will be available to meet with the contractor 20 to 30 calendar days after the initial scoping meeting to discuss and clarify any issues the contractor may have regarding this project. Contact the WAM/COR to schedule this meeting at least five working days before the proposed meeting date.
- Preparing and submitting a final RI/FS work plan within 30 calendar days after the scoping meeting. The work plan shall include a detailed description of the technical approach for the RI/FS activities in accordance with the Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA (OSWER Directive 9355.3-01, 1998). Specify the necessary procedures, inspections, deliverables, and schedules. Include a comprehensive implementation management schedule for completion of each major activity and submittal. The RI/FS Work Plan will incorporate the evaluations form Epic Study of Historical Aerial Photographs including:
 - Stitching historical aerial photographs into ArcView
 - Locating borings/piezometers based on Epic Study evaluations such as:

- Buildings, scarred areas, berms, landfills, lagoons disturbed areas, etc.
- Assume up to 100 DPT locations to depths up to 30 feet;
- Soil samples from surface, mid-level and just above water table
- Installation of temporary piezometers
- Collection of grab water samples from temporary piezometers
- Preparing the estimated cost to complete the work assignment/task order, including subcontractor costs, for each element of the SOW; providing a breakdown of the cost by task and subtask levels, in accordance with the contract work breakdown structure (WBS).
- Negotiating and preparing a revised work plan, if the contractor fails to meet the Region's minimum standards. Note that EPA does not anticipate a need to re-negotiate with the contractor nor to require the contractor to revise the work plan. Contractor costs associated with the preparation of the revised work plan and cost estimate shall be paid by the government but shall not bear fee.
- Providing conflict of interest disclosure.

SITE-SPECIFIC PLANS

WBS: 1.2

Review all existing site-specific plans and prepare, update, and/or maintain plans, as necessary, for RI/FS implementation. Incorporate the plans and procedures received from any subcontractor(s) into the overall site plans. Should the contractor fail to meet the required standards in accordance with the appropriate legal, regulatory, and EPA guidance, the contractor shall prepare revised site-specific plans. (NOTE: In that event, contractor costs associated with the preparation of the revised site-specific plans shall be paid by EPA but shall not bear fee.) Typical plans include, but are not limited to, the following:

- Sampling and Analysis Plan (SAP) in accordance with 40 CFR 300.415(b)(4)(ii).
- Site-specific Health and Safety Plan (HSP) that specifies employee training, protective equipment, medical surveillance requirements, standard operating procedures, and a contingency plan in accordance with 29 CFR 1910.120(l)(1) and (l)(2).
- Quality Assurance Project Plan (QAPP) that addresses data quality objectives (DQOs) and the measures necessary to achieve them.

SUBCONTRACTOR PROCUREMENT

WBS: 1.3

Procure subcontractors to support the FSP; oversee subcontractor activities and manage work product quality. Develop subcontractor SOWs; distribute to bidders, evaluate proposals, select subcontractors and award subcontractor agreements for services and purchase orders for vendors supplying materials and equipment for the project. Some of the anticipated subcontractor tasks include the following:

Direct Push Technology (DPT) drilling

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- Environmental drilling services for well installation in overburden and bedrock
- Geophysical Surveying
- Utility Locating
- Surveying
- IDW Disposal
- Mobile Laboratory Analytical Services
- Fixed-based Laboratory Analytical Services
- Excavation Services for Test Pits
- Membrane Interface Probe Services

Project Management and Reporting

PROJECT MANAGEMENT

WBS: 1.4

Provide project management support over the 35-month period of performance (*November 2013 through September 2016*). Perform activities required to effectively manage the work assignment/task order. These activities typically include, but are not limited to, the following:

- Monitoring costs and progress.
- Preparing and submitting monthly progress reports that document monthly and cumulative cost, performance status, and technical progress.
- Preparing and submitting monthly invoices in accordance with the level of detail as specified in the contract.
- Manage, track, and report status of site-specific equipment.
- Participating in meetings and preparing and submitting meeting summaries.
- Accommodating any external audit or review mechanism that EPA requires.
- Evaluating existing data, including usability, when directed by EPA.
- Coordinating with local and emergency response teams.
- Reviewing background documents as directed by EPA.
- Attending EPA-held training.

PROJECT INITIATION

WBS: 1.5

Perform project initiation and support that will lead to the selection of a remedy that eliminates, reduces, or controls risks to human health and the environment. Typical activities include, but are not limited to, the following:

- Developing a conceptual understanding of the site based on the evaluation of existing data and summarizing this understanding in a Technical Memorandum.
- Identifying likely response scenarios and potentially applicable technologies and operable units that address site problems and submitting this information in a Technical Memorandum.
- Preparing conceptual exposure pathway analysis in accordance with Regional guidelines and OSWER Directives 9285.7-02B, 12/89 (Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part A, Baseline Risk Assessment); Interim Final) and 9285.7-01A (Risk Assessment Guidance for Superfund, Volume II: Environmental Evaluation Manual).
- Initiating identification of Applicable or Relevant and Appropriate Requirements (ARARs) that affect remedy selection.
- Developing an EPA-approved laboratory QAPP program that provides oversight of inhouse and subcontracted laboratories through periodic performance evaluation sample analyses and/or on-site audits of operations and has a system of corrective actions to be used in cases where performance does not meet the standards of the program.
- Developing/reviewing qualifications of the laboratory for the given analytical requirements.
- Procuring, managing, and providing oversight of pool and team subcontracts for analytical services.

COMMUNITY INVOLVEMENT (CR)

WBS: 2

Prepare and implement the Community Involvement Plan (CIP) for the site. Perform community involvement activities in support of EPA throughout the RI/FS in accordance with the *National Oil and Hazardous Substances Pollution Contingency Plan* (NCP, 40 CFR Part 300) and the *Community Relations in Superfund - A Handbook*, (U.S. EPA, Office of Emergency and Remedial Response, OSWER Directive No. 9230.0-3C, January 1992). These tasks include, but are not limited to, the following:

- Conducting community interviews.
- Developing Community Involvement Plan (CIP).
- Providing public meeting and/or open house support.
- Preparing fact sheets, notices and other informational documents.
- Providing support for proposed plan.

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- Providing public hearing support.
- Publishing public notices in local newspapers serving the site community.
- Maintaining public information repository.
- Developing and updating site mailing lists.
- Providing administrative and technical support for Responsiveness Summary.
- Preparing presentation materials.
- Implementing other community involvement activities as identified by the site-specific CIP or EPA.
- Providing technical support to review Community Involvement deliverables and participate in public meetings.

Assume that five property access agreements from adjacent properties will be needed; and three community meetings will take place in Elkton, MD.

Risk Identification and Assessment

FIELD INVESTIGATION/DATA ACQUISITION (FI)

WBS: 3

Collect environmental data required to support the remedial investigation/feasibility study. Data acquisition begins with EPA's approval of the Field Sampling Plan (FSP). Typical activities include, but are not limited to, the following:

- Mobilization/demobilization.
 - Establish office and storage space and supplies for completing the RI field effort. In addition, prepare sampling crews for each RI field event to minimize potential QA/QC issues.
- Hydrogeological assessment. Up to 40 wells will be drilled and installed. Tasks involve with the hydrogeologic assessment include:
 - Test boring and monitoring well installation and development.
 - Downhole geophysics
 - Packer testing
 - Groundwater elevation measurements
 - Surface water elevation measurements
 - Surveying
 - Downhole unexploded ordnance (UXO) clearances may also be necessary.
- Soil boring, drilling, and testing.

RAC II Model RI/FS SOW November 2002

- Source Area and Background Surface and subsurface soil sampling:
 - Collect 62 on-site surface soil samples and 30 background surface soil samples during one 4-day week utilizing a disposable trowel, hand auger, or equivalent. Include ODCs for disposable trowels.
 - Potential subcontractors utilized for this subtask should include a DPT driller and a mobile laboratory.
 - Conduct DPT investigations of potential source areas and perched groundwater zones. It is estimated that up to 15 days of DPT and mobile laboratory services will be needed to complete the investigations.
- Epic Study Surface and Subsurface soil sampling:
 - Collect 100 on-site surface soil samples and 200 subsurface soil samples during a five week period of 4.5-day weeks utilizing a track mounter DPT (Geoprobe 6600 or equivalent rig). Include ODCs for disposable trowels.
 - Assume up to 100 DPT locations to depths up to 30 feet;
 - 10' slotted screen; 20 feet riser; end caps
 - 4-day week, 5 weeks
 - Soil samples from surface, mid-level and just above water table
 - Installation of temporary piezometers at each location
 - Collection of grab water samples from temporary piezometers
 - Survey ground and piezometer locations/elevations
 - *Obtain groundwater levels with interface probe*
- Surface water and sediment sampling
 - Conduct surface water and sediment sampling within the Site drainages to assess the potential for contaminant migration via surface water runoff and sediment transport. It is estimated that 22 co-located surface water and sediment sample will be collected.
- Groundwater sampling
 - Assess groundwater quality across the Site and create new potentiometric surface maps to demonstrate delineation of groundwater contamination and assess contaminant groundwater pathways. Assume four groundwater sampling events will be conducted.
- Investigation Derived Waste (IDW) Management
 - Manage field-generated waste characterization and disposal in accordance with local, State and Federal regulations. Assume 25 55-gallon drums and 12,000 gallons of water will be generated during the soil investigation, groundwater investigation and the four groundwater sampling events. In addition, product removal from up to 10 wells using a

vacuum truck will be conducted once per quarter.

- Other environmental sampling activities may include:
 - Field screening
 - Soil boring/permeability sampling
 - Air monitoring
 - Indoor sampling
 - Reuse assessment
 - Geotechnical survey(s).
 - Munitions and Explosives of Concern (MEC) Investigation
- Site reconnaissance.
 - Ecological resources reconnaissance
 - Well inventory
 - Existing well development and establishment of sampling points
 - Landfill gas emission sampling
 - Surface geophysical survey
 - On-site and residential well sampling
 - Surface water sampling
 - Soil sampling
 - Sediment sampling
 - Leachate sampling
 - Field screening
 - Tank and drum sampling
- Ecological Characterization.
 - Wetland and habitat delineation/function and value assessment
 - Wildlife observations
 - Benthic reconnaissance/community characterization
 - Identification of endangered species and others of special concern
 - Bioassays
 - Bioaccumulation studies
 - Biota sampling/population studies

SAMPLE ANALYSIS (SN)

WBS: 4

Analyze multi-media samples (soils, sediment, surface water, groundwater, and IDW) to determine the presence and concentrations of organic and inorganic contaminants. A variety of mechanisms may be used to implement this task including: field screening using mobile facilities or field portable equipment, the Contract Laboratory Program (CLP), laboratories procured under subpool or team subcontracts, the Regional Environmental Services Division (ESD), the Environmental Response Team (ERT) laboratory, or regionally procured laboratories. [NOTE: This task consists exclusively of performing sample analyses and producing analytical data. For cost estimating purposes, there should be no direct labor costs under this task - no hours should be reflected under this task, only dollars.] It is anticipated that numbers and type of samples collected for analysis will include:

The following soil samples are anticipated for off-site laboratory analysis:

- o Up to 266 samples will be submitted for VOC analysis;
- o Up to 373 samples will be submitted for SVOC analysis;
- o Up to 373 samples will be submitted for explosive analysis;
- o Up to 373 samples will be submitted for pesticide analysis;
- o Up to 389 samples will be submitted for PCB analysis;
- o Up to 389 samples will be submitted for metals analysis; and
- Up to 112 samples will be submitted for hexavalent chromium analysis.

The following water (groundwater and surface water) samples are anticipated for off-site laboratory analysis:

- o Up to 579 samples will be submitted for VOC analysis;
- o Up to 42 samples will be submitted for SVOC analysis;
- Up to 359 samples will be submitted for explosive analysis;
- o Up to 42 samples will be submitted for pesticide analysis;
- o Up to 45 samples will be submitted for PCB analysis;
- o Up to 45 samples will be submitted for metals analysis; and
- Up to 35 samples will be submitted for hexavalent chromium analysis.

The following sediment samples are anticipated for off-site laboratory analysis:

- o Up to 31 samples will be submitted for VOC analysis;
- o Up to 31 samples will be submitted for SVOC analysis;
- o Up to 31 samples will be submitted for explosive analysis;
- o Up to 31 samples will be submitted for pesticide analysis;
- o Up to 34 samples will be submitted for PCB analysis;
- o Up to 34 samples will be submitted for metals analysis; and
- o Up to 34 samples will be submitted for hexavalent chromium analysis.

Epic Study Investigation: The following samples are anticipated for off-site laboratory analysis:

The following soil samples are anticipated for off-site laboratory analysis:

- Up to 200 samples will be submitted for VOC analysis;
- o Up to 300 samples will be submitted for SVOC analysis;
- o Up to 300 samples will be submitted for explosive analysis;
- o Up to 300 samples will be submitted for pesticide analysis;
- o Up to 300 samples will be submitted for PCB analysis;
- o Up to 300 samples will be submitted for metals analysis; and
- Up to 300 samples will be submitted for hexavalent chromium analysis.

The following water (groundwater and surface water) samples are anticipated for off-site laboratory analysis:

- o Up to 100 samples will be submitted for VOC analysis;
- o Up to 100 samples will be submitted for SVOC analysis;
- o Up to 100 samples will be submitted for explosive analysis;
- o Up to 100 samples will be submitted for pesticide analysis;
- o Up to 100 samples will be submitted for PCB analysis;
- o Up to 100 samples will be submitted for metals analysis; and
- o Up to 100 samples will be submitted for hexavalent chromium analysis.

The following IDW samples are anticipated for off-site laboratory analysis:

Up to 10 soil IDW and 15 water IDW samples will be submitted for TCLP VOCs;
 TCLP SVOCs; TCLP pesticides; TCLP metals; reactive cyanide; reactive sulfide;
 flashpoint/ ignitability; and corrosivity/pH, as required by the IDW subcontractor.

ODCs associated with cooler and bottleware shipments from the laboratory to the site prior to the field investigations shall be included.

ANALYTICAL SUPPORT AND DATA VALIDATION (AN)

WBS: 5

Schedule, coordinate, track, and oversee sample analyses and validate analytical data. Typical activities include, but are not limited to, the following:

- Collecting, preparing, and shipping environmental samples in accordance with the Field Sampling Plan (FSP). The following types of sampling shall be required:
 - Field screening
 - Ground water sampling
 - Surface and subsurface soil sampling
 - Surface water and sediment sampling
 - Air monitoring and sampling
 - Biota sampling
 - Other types of media sampling and screening
- Developing data quality objectives (DQO) for each sampling event; these DQOs shall be the determinative factor for assessing the success or failure of the sampling.
- Requesting, obtaining, and performing oversight of analytical services in compliance with EPA requirements.
- Coordinating with the EPA Sample Management Office (SMO), the Regional Sample Control Coordinator (RSCC), and/or the Environmental Services Division (ESD) regarding analytical support, data validation, and quality assurance issues.

- Implementing the EPA-approved laboratory quality assurance program that provides oversight of in-house and subcontracted laboratories through periodic performance evaluation sample analyses and/or on-site audits of operations and has a system of corrective actions.
- Providing sample management including chain of custody procedures, information management, sample retention, and 10-year data storage.
- Performing data validation, the process by which the quality of the data, the defensibility of the data, and the chain of custody are verified. Performing data validation in accordance with Regional guidelines.
- Reviewing data for usability for its intended purpose.
- Providing reports on data validation and usability.

DATA EVALUATION (DE)

WBS: 6

management network. Data shall be used in the preparation of the RI and Risk Assessment Report tables, maps and figures. Compile analytical and field data. Provide data in format that is compatible with Regional or National electronic data Typical activities include, but are not limited to, the following:

- Data usability evaluation and field quality assurance/quality control (QA/QC).
- Data Reduction and Tabulation.
- Data trend evaluation and/or modeling and submission of Technical Memorandum.
- Data reduction and tabulation.
- Soil boring and monitoring well logs.
- Field sampling data.
- Hydrogeological testing data.
- Geophysical data (downhole geophysics, survey).
- Analytical results.
- Environmental Fate and Transport Modeling/Evaluation.

WBS: 7

quantify, where appropriate, the current and potential human health and environmental risks that would prevail if no further Conduct baseline human health and ecological risk assessments. The objective of these assessments is to characterize and remedial action is taken.

Risk Assessment must be done in accordance with applicable Agency guidance, directives and procedures.

RI/FS Reports

REMEDIAL INVESTIGATION REPORT (RR)

WBS: 8

environment and to support the development, evaluation, and selection of appropriate response alternatives. The task includes all Investigations/Feasibility Studies under CERCLA, OSWER Directive 9355.3-01, October 1988, Interim Final (or latest revision) Prepare findings after data have been evaluated. The RI shall provide information to assess risks to human health and the draft and final reports. The RI report shall be written in accordance with Guidance for Conducting Remedial and Guidance for Data Usability in Risk Assessment, (EPA/540/G-90/008), October 1990 (or latest revision).

Typical components of the RI report include, but are not limited to, the following:

- Site Background.
- Investigation.
- Field Investigation and technical approach
- · Chemical analyses and analytical methods
- Field methodologies (biological, surface water, sediment, soil boring, soil sampling, monitoring well installation, groundwater sampling, hydrogeological assessment)
- Site Characteristics.
- Geology
- Hydrogeology
- Meteorology
- Demographics and land use
- Reuse assessment
- Ecological assessment

- Nature and Extent of Contamination.
- Contaminant sources
- Contaminant distribution and trends
- Fate and Transport.
- Contaminant characteristics
- Transport processes
- Contaminant migration trends
- Risk assessment.
- Summary and Conclusions.
- Retrieving sample for testing.
- Preparing Technical Memorandums: Assume Two Technical Memorandums summarizing major field work in 2014 and 2015 including maps, interpretations and recommendations to resolve data gaps.
- Characterizing and disposing of residuals in accordance with local, State, and Federal regulations.

Attachment 1 - Summary of Major Submittals for the RI/FS at Dwyer Groundwater Plume Site

| DELIVERABLE | NO. OF COPIE S | DUE DATE (calendar days) | EPA REVIEW PERIOD |
|---------------------------------------|----------------------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| RI/FS Work Plan | 3 | 45 days after initiation of work assignment/task order (WA) | 21 days after receipt of work plan |
| Monthly Progress Reports | 3 | Monthly and as required in the contract | NA |
| Site Management Plan (SMP) | 3 | 14 days after approval of RI/FS work plan | 14 days after receipt of plan |
| Health and Safety Plan (HASP) | 3 | 14 days after approval of RI/FS work plan | 14 days after receipt of plan |
| Sampling and Analysis Plan (SAP) | 3 | 14 days after approval of RI/FS work plan | 14 days after receipt of plan |
| Quality Assurance Project Plan (QAPP) | 3 | 14 days after approval of RI/FS work plan | 14 days after receipt of plan |
| Field Sampling Plan (FSP) | 3 | 14 days after approval of RI/FS work plan | 14 days after receipt of plan |
| Fact Sheets | 3 | As needed | [number] days after receipt of fact sheet |
| Public Meeting Support Materials | TBD | One week prior to scheduled meeting | NA |
| Field Reports | 3 | 3 days after every (time period, i.e, week) of field activities | [number] days after receipt |
| Data Validation Report | 3 | [number] days after receipt of all analytical results from laboratory | [number] days after receipt |
| Data Evaluation Summary Report | 3 | [number] days after receipt of all analytical results from laboratory | [number] days after receipt |
| | | מומון וופתן זיים מונון זיים מונון | |

November 6, 2002 Draft

| DELIVERABLE | NO. OF COPIE S | DUE DATE (calendar days) | EPA REVIEW PERIOD |
|----------------------------------------|----------------------|------------------------------------------------------------------------------------|-----------------------------|
| Human Health Risk Assessment Report | 3 | [number] days after completion of field [number] days after receipt investigations | [number] days after receipt |
| Ecological Risk Assessment Report | 3 | [number] days after completion of field investigations | [number] days after receipt |
| Technical Memorandums (two) | 3 | [90] days after major field work | 21 days after receipt |
| Remedial Investigation Report | 3 | After all RI/FS field work completed | 21 days after receipt |

| AMENDME | ENT OF SOLICITATION/MODIFIC | ATION OF CONTRACT | | 1. CONTRACT ID CODE | | PAGE OF P | |
|------------------------|---------------------------------------------------------------------------------------------------------|---------------------------------------------------|------------------|------------------------------------------------------------------------------------------------|------------|--------------------------|-------------------|
| 2. AMENDME | NT/MODIFICATION NO. | 3. EFFECTIVE DATE | 4. RE | QUISITION/PURCHASE REQ. NO. | 5. PR | 1 COJECT NO. (If | 12 applicable) |
| 0274 | | See Block 16C | - 1 | R3-14-00216 | | · | |
| 6. ISSUED BY | Y CODE | R3 | 7. A | DMINISTERED BY (If other than Item 6) | CODE | E | |
| 1650 AR | 3 RONMENTAL PROTECTION CCH STREET CLPHIA PA 19103-2029 | | | | | L | , |
| 8. NAME AND | ADDRESS OF CONTRACTOR (No., street | , county, State and ZIP Code) | (x) 9. | A. AMENDMENT OF SOLICITATION NO. | | | • |
| 11107 S | OLOGIC INC UNSET HILLS ROAD SUITI VA 20190-5309 | E 400 | x 1 | B. DATED (SEE ITEM 11) OA. MODIFICATION OF CONTRACT/ORDER CP = S3 = 0.7 = 0.5 | NO. | | |
| | - | | _ 1' | OB. DATED (SEE ITEM 13) | | | |
| CODE 19 | 93942604 | FACILITY CODE | | 06/28/2007 | | | |
| | | 11. THIS ITEM ONLY APPLIES TO | AMEND | MENTS OF SOLICITATIONS | | | • |
| to the solici | itation and this amendment, and is received TING AND APPROPRIATION DATA (If requeed u.e.du.l.e. | d prior to the opening hour and date spruired) Ne | ecified. t In | e by telegram or letter, provided each telegram Crease: MODIFIES THE CONTRACT/ORDER NO. AS I | \$9,86 | 52.00 | |
| CHECK ONE | A. THIS CHANGE ORDER IS ISSUED F ORDER NO. IN ITEM 10A. | PURSUANT TO: (Specify authority) Th | E CHAN | NGES SET FORTH IN ITEM 14 ARE MADE IN | THE CC | ONTRACT | |
| | B. THE ABOVE NUMBERED CONTRAC appropriation date, etc.) SET FORTH C. THIS SUPPLEMENTAL AGREEMEN | | | DMINISTRATIVE CHANGES (such as changery OF FAR 43.103(b). RITY OF: | es in payi | ing office, | |
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| | D. OTHER (Specify type of modification | ** | | - | | | |
| X | B.2, Work Assignment | s and B.6 Limitatio | n of | | | | |
| E. IMPORTAN | IT: Contractor 🗵 is not, | is required to sign this document a | and retur | n 0 copies to the issu | ing office |) . | |
| 14. DESCRIP DUNS Nu | | (Organized by UCF section headings, | including | g solicitation/contract subject matter where fea | isible.) | | |
| See Ite | m 14 Continuation on | page three (3) | | | | | |
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| Continu | ed | | | | | | |
| | | e document referenced in Item 9A or 1 | | eretofore changed, remains unchanged and in | | | |
| 15A. NAME A | ND TITLE OF SIGNER (Type or print) | | | A. NAME AND TITLE OF CONTRACTING OF | FICER () | ype or print) | |
| | | | | ohn Robb | | | |
| 15B. CONTRA | ACTOR/OFFEROR | 15C. DATE SIGNED | 16E | UNITED STATES OF AMERICA | | | DATE SIGNED |
| | (Signature of person authorized to sign) | AMAZIMAN - T-W-T | () | (Signature of Contracting Officer) | | ゟ゙゙ | 6-2014 |
| NSN 7540-01 | -152-8070 | | | / | | ARD FORM 30 | (REV. 10-83) |
| Previous editi | on unusable | | | | | ed by GSA CFR) 53.243 | |

| CONTINUATION SHEET | REFERENCE NO. OF DOCUMENT BEING CONTINUED | PAGE "O | |
|--------------------|-------------------------------------------|---------|----|
| | EP-S3-07-05/0274 | 2 | 12 |

NAME OF OFFEROR OR CONTRACTOR

| ITEM NO. | SUPPLIES/SERVICES | QUANTITY | | UNIT PRICE | AMOUNT |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----|------------|----------|
| (A) | (B) | (C) | (D) | (E) | (F) |
| | Add Item 0052 as follows: | | | | |
| 0052 | Add special account funds for RIFS/OS activities at the Sauer Dump SF Site (03EW) under RACs Contract EPS30705, HGL, WA 055. Obligated Amount: \$9,862.00 | | | | 9,862.00 |
| | Accounting Info: 14-TR2-03S0XEW-303DD2-2505-C001-1403SK1041-001 BFY: 14 Fund: TR2 Budget Org: 03S0XEW Program (PRC): 303DD2 Budget (BOC): 2505 Job #: 03EWBD01 Cost: C001 DCN - Line ID: 1403SK1041-001 Funding Flag: Partial Funded: \$9,862.00 | | | | |
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Modification 274

Item 14 Continuation

- 1. The purpose of this modification is to obligate funds and issue the following revisions:
 - a. Revision 16 to WA 013TATA03P9
 - b. Revision 12 to WA 044RICOA3Z4
 - c. Revision 4 to WA 055RIFS03EW
- 2. Funds obligated as follows:
 - a. Obligate \$9,862 to WA 055RIFS03EW
- 3. Section B, Paragraph B.6, Limitation of Funds Notice (EP 52.232-100) is modified as follows:

Modification 272 is hereby corrected to:

| Term Form Segment | Contract Funding Thru MOD 271 | Funding Change | s Current I | Funding |
|---------------------------|----------------------------------|----------------|-------------|-----------|
| Estimated Cost | s Exemp | otion | (b) | (4)- |
| Fixed Fee | \$ | - | 1 | - |
| Total Cost Plus Fixed Fee | \$30,597,551.37 | \$53,124.00 | \$30,6 | 50,675.37 |

Modification 274:

| Term Form Segment | Contract Funding Thru MOD 272 | Funding Chang | es (| Current | t Funding |
|---------------------------|----------------------------------|---------------|------|---------|-------------|
| Estimated Cost | sExemp | tion | () | o) | (4)_ |
| Fixed Fee | \$ | | 1 | | - |
| Total Cost Plus Fixed Fee | \$30,650,675.37 | \$9,862.00 | | \$30 | ,660,537.37 |

| | EPA WORK ASS | SIGNMENT FOI | RM (W | AF) FOR RA | AC . | • | |
|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 1. WORK ASSIGNMEN | Г (WA) INFORMATION | | | | | | |
| Project Name: Hellertown Manufacturing Activity: Technical Assistance Date: 05/06/2014 | | Contractor:HGL EPA Contract NoEP-S3-07-05 Contractor Control No | | 05 | WA No.: 013TATA03P9 Revision No.: 16 (Sixteen) Modification No.: 274 (Contracting Officer Use Only) | | |
| 2. DESCRIPTION OF A | CTION | | | · | | | |
| New WA (need WP for the WA) . Attach SOW including schedule . Designate WAM | X WA Amendment (need revised WP and/or cost estimate) Change in LOE or scope by task Add additional tasks or funds for increased activity | — Partial WP Appro — WP Disapproval — Final WP Approv — Amendment to Fi WP Approval Approve change in scope, or budget Approve additional | Memorandum Details on scope, budget, schedule Minor shift within SOW (no change in \$/LOE) Change WAM LOE, Set or revise expenditure limit (EL) | | budget, or n SOW LOE) | Incremental Funding Fund approved WP WA Closeout Notification Notify contractor to initiate WA closeout task Revise EL after final invoice Other | |
| 3. BUDGET INFORMA | ΓΙΟΝ | | | | | | |
| Total Funding Receive | Total Funding Received (\$) LOE Term WAs Only | | (\$)* | | Expen - LOE Term WAs o | | |
| New Total | unding Category: Bulk Funding * Includes fees | | 0 70.650 | | | 70,650 | |
| 4. WA COMPLETION I | DATE Current: 12-3 | 31-2014 | Revis | ed: | | | |
| 5. EPA COMMENTS: The contractor shall submit a Work Plan & Cost Estimate, in accordance with the attached Statement of Work. | | | | | | | |
| 6. APPROVALS | | | | | | | |
| Contractor Signatures: Site Manager/Firm | | Date | /s/ <u>Tim</u> | gnatures: othy Gallagher k Assignment Manag one Number | ger | 05-06-2014 Date 215-814-3196 | |
| Program Manager/Firm | | Date | Proj | ect Officer ne Number | | 05-06-2014 Date 215-814-2997 | |
| X Approved As Ap Submitted Chang | proved With Not Approved | $\frac{\angle}{\overline{s}}$ | J/J/ ignature o | of Contracting Officer | <u></u> | 5 6 9014 Date | |

RAC II NATIONAL MODEL STATEMENT OF WORK FOR TECHNICAL ASSISTANCE (TA)

• HELLERTOWN MANUFACTURING CO. SITE, HELLERTOWN, PENNSYLVANIA April 2014

Contract No: EPS30705

Work Assignment/Task Order No: 013TATA03P9

Introduction

PURPOSE

The purpose of this work assignment is to obtain contractor support for development of a strategy to investigate a potential contamination source area at the site. The investigation will involve the use of a mobile geoprobe unit that is able to collect lengths of soil at varying depths for possible analysis. Extracted soil would be scanned with a photo ionization device (PID) and, based on results, soil samples will be collected for shipment and analysis. The geoprobe unit will be needed for two days and the probe locations will be predetermined by the USEPA. Maximum geoprobe and sampling depth is expected to be 20 feet below ground surface. The contractor is expected to obtain the geoprobe services, provide oversight for the two days of sample collection and ship the collected soil samples to an appropriate laboratory in EPA's Contract Lab. Program. A brief Health and Safety Plan and Final Report will be expected to be provided by the contractor. This Statement of Work (SOW) sets forth the framework and requirements for implementing the required technical assistance at the Hellertown Manufacturing Co. site.

DESCRIPTION OF ROD AND POTENTIAL ROD AMENDMENT

The Record of Decision, signed on September 30, 1991 addressed source control of five former lagoons, which were the source of the groundwater contamination, and groundwater remediation. The selected remedy included the following requirements:

- Placement of an impermeable cover over the entire former lagoon area
- Surface water runoff controls
- Extraction and treatment of groundwater (air stripping and solids removal), with discharge to Saucon Creek
- Long-term groundwater monitoring
- Deed restriction

The ROD further states: "Because this remedy results in hazardous substances above health-based levels remaining on-site, a review will be conducted within five years after commencement of remedial action and every five years thereafter, as required by Section 121 (c) of CERCLA, 42 U.S.C. § 9261 (c), to ensure that the remedy continues to provide adequate protection of human health and the environment."

GENERAL REQUIREMENTS

The contractor shall furnish personnel, services, materials and equipment to provide the required technical assistance in accordance with this Statement of Work.

The contract work breakdown structure (WBS) shall be used for project scoping, scheduling, and technical and cost tracking and reporting under this work assignment/task order.

The summary of major deliverables and delivery schedule for this work assignment/task order is specified in Attachment 1.

The contractor shall maintain work assignment/task order activity files as specified in the contract and by the Work Assignment Manager (WAM)/Contracting Officer Representative (COR).

The contractor shall communicate at least weekly with the Work Assignment Manager WAM/COR, either in face-to-face meetings or through conference calls. The contractor shall document all decisions that are made in meetings and conversations with EPA. The contractor shall forward this documentation to the WAM/COR within five working days of the meeting or conversation.

EPA will provide oversight of contractor activities throughout the work assignment/task order. EPA review and approval of deliverables is a tool to assist this process and to satisfy, in part, EPA's responsibility to provide effective protection of public health, welfare, and the environment. Acceptance of contractor submittals by EPA does not relieve the contractor from responsibility for the adequacy of the deliverables or their professional responsibilities.

RECORD KEEPING REQUIREMENTS

Maintain all technical and financial records for technical assistance in accordance with the contract. At the completion of the work assignment/task order, submit an official record of the technical assistance in both compact disk and a hardcopy to the WAM/COR. Provide the deliverables using electronic media.

USEPA PRIMARY CONTACTS

The primary contact for this work assignment is Tim Gallagher. He can be reached at (215)814-3196, via facsimile at (215)814-3002, or via e-mail at gallagher.tim@epa.gov. His mailing address is: USEPA Region III, 3HS21, 1650 Arch Street, Philadelphia, PA 19103-2029.

WORK ASSIGNMENT/TASK ORDER COMPLETION DATE & PROJECT CLOSEOUT

At the completion of the work assignment/task order, the contractor shall perform all necessary closeout activities as specified in the contract. These activities include closing out any subcontracts, indexing and consolidating project records and files as required above, and providing a technical and financial closeout report to EPA. The estimated date for completion of all technical activities and closeout activities for this work assignment/task order is June 15, 2014.

Task 1 Project Planning and Support (PP)

The contractor shall perform the following activities to initiate and manage the work assignment/task order.

Attend Scoping Meeting. The contractor shall contact the WAM/COR within five calendar days after receipt of the work assignment/task order to schedule the scoping (kickoff) meeting or conference call. It is anticipated that two to three contractor personnel will attend the kickoff meeting.

Develop Work Plan. The contractor shall prepare and submit a <u>letter work plan</u> within 15 calendar days after receipt of the work assignment/task order. The contractor shall use information from this SOW and previously collected data from the subject property, appropriate EPA guidance, and technical direction provided by the EPA WAM/COR as the basis for preparing the <u>letter work plan</u>. The work plan shall include a description of project tasks, the procedures and estimated costs to accomplish tasks, project documentation, and project schedule. The contractor shall use their quality assurance/quality control (QA/QC) systems and procedures to assure that the work plan and other deliverables are of professional quality requiring only minor revisions. Specifically, the letter work plan shall include the following:

- Identification of tasks described in the SOW. Output of this task will be a detailed work breakdown structure of the project.
- The contractor's technical approach to each task to be performed; any information to be produced during and at the conclusion of each task; and a description of the work products that will be submitted to EPA. Information shall be presented in a sequence consistent with the SOW.
- A schedule with specific dates for completion of each required activity and submission of each deliverable required by the SOW. This schedule shall also include information regarding timing, initiation, and completion of all critical path milestones for each activity and deliverable and the expected review time for EPA.
- A list of key contractor personnel providing support on the work assignment/task order.
- Estimated costs for performing work assignment/task order tasks presented at the task level and the overall work assignment/task order level.

Prepare a Revised Letter Work Plan (if necessary). The contractor shall attend a work plan negotiation meeting at the Philadelphia Region III office. EPA and the contractor will discuss and agree upon the final technical approach and costs required to accomplish the tasks outlined in the SOW. The contractor shall prepare and submit a revised work plan incorporating the agreements made in the negotiation meeting.

Provide Conflict of Interest Disclosure. The contractor shall prepare and submit a conflict of interest disclosure statement that complies with contract requirements with the work plan/cost estimate submittal.

Perform Site-Specific Project Management. The contractor shall provide general work assignment/task order management and coordination to implement the work assignment/task order described in this SOW. The contractor shall prepare monthly progress reports in accordance with contract requirements. The contractor shall manage and track costs and prepare and submit invoices. The contractor shall report costs and level of effort (by P-level) for the reporting period as well as cumulative amounts expended to date. Periodically, during the course of the work assignment/task order, the WAM/COR may request actual costs to date by work breakdown structure (WBS) element. For budgeting purposes, the contractor shall assume three of these requests.

Track Site-Specific Equipment. The contractor shall manage, track, and report status of site-specific equipment (if any).

Attend Meetings. The contractor shall participate in progress meetings during the course of the work assignment/task order. The contractor shall prepare meeting minutes as requested by the WAM/COR. For budgeting purposes, the contractor shall assume one meeting, with one or two people in attendance, for one hour, on-Site.

Accommodate External Audit. The contractor shall accommodate any external audit or review mechanism that EPA may require.

Evaluate Existing Data and Review Background Documents. The contractor shall obtain, copy, and review available information and evaluate existing documents and data pertaining to the site, as needed. The contractor shall obtain the necessary information from the WAM/COR. If necessary, the contractor shall evaluate the existing data and documents, including but not limited to the following:

- Record of Decision
- X Previously submitted and approved project-specific information.

Prepare Site-Specific Plans: The contractor shall develop the following site-specific plans. The contractor shall develop a draft plan for EPA review, then incorporate EPA comments to produce the final plan.

- X The contractor shall prepare a site-specific HASP that specifies employee training, protective equipment, medical surveillance requirements, standard operating procedures, and a contingency plan in accordance with 40 CFR 300.150 of the NCP and 29 CFR 1910.120 1(1) and (1)(2). A task-specific HASP must also be prepared to address health and safety requirements for site visits.
- Develop Field Sampling Plan (FSP). Prepare a FSP that defines the sampling and data collection methods that shall be used for the project. The FSP shall include sampling objectives; sample locations and frequency; sampling equipment and procedures; sample handling and analysis; and a breakdown of samples to be analyzed through the Contract Laboratory Program (CLP) and through other sources, as well as the justification for those decisions. The FSP shall consider the use of all existing data and shall justify the need for additional data whenever existing data will meet the same objective. The FSP shall be written so that a field sampling team unfamiliar with the site would be able to gather the samples and field information required. The contractor shall document any required changes to the FSP in a memorandum to the WAM/COR
- Develop Quality Assurance Project Plan (QAPP). The contractor shall prepare a QAPP in accordance with EPA QA/R-5 (latest draft or revision). The QAPP shall describe the project objectives and organization, functional activities, and quality assurance/quality control (QA/QC) protocols that shall be used to achieve the desired Data Quality Objectives (DQOs). The DQOs shall, at a minimum, reflect use of analytical methods for identifying contamination and addressing contamination consistent with the levels for remedial action objectives identified in the National Contingency Plan. The QAPP developed for the RI/FS should be referenced or adapted whenever possible when preparing the QAPP for the RI/FS.

Team or Pool Subcontract Management. If the contractor proposes utilization of a team or pool subcontractor to implement any portion of the work outlined in this SOW, the contractor shall incorporate the effort associated with management of the team or pool subcontractor under this SOW element.

Task 2 Expert Technical Assistance (ET)

This task includes providing expert knowledge to the EPA in a variety of technical areas, including but not limited to: geoprobe methods, geoprobe equipment, use of a PID, sample collection, and sample shipment. The contractor shall provide the following support under this task.

Technical Meeting Assistance. This task includes work efforts related to attendance (if necessary) at and
documentation of meetings with EPA, principal responsible parties (PRPs), PADEP, and potentially
affected homeowners. The contractor may be requested to attend various meetings throughout the
performance of the work assignment/task order. For budgeting purposes the contractor shall assume one

meeting. It should be assumed that the meeting will take place in Hellertown, PA. It is anticipated that each meeting will last approximately one hour and that 1-2 contractor staff persons will attend each meeting.

- Technical Assistance. The contractor shall provide assistance in the development and/or review of technical information/documentation relating to the site (e.g., application of a specific technology on a specific site). The contractor shall provide technical assistance consisting of technical reviews, evaluations, and assessments concerning geoprobe activities at the site. A <u>Final Summary Report</u>, documenting the project activities, investigative results, findings, sample results, picture log, conclusions, and recommendations shall be required.
- Work Implementation. Provide all personnel, equipment and materials necessary to perform the investigative tasks described in this scope of work.

EPA expects a two-day sampling effort within the Hellertown Superfund Site property, with a one or two man crew, including health and safety support, overseeing their geoprobe contractor. EPA requests that the HGL-proposed geoprobe contractor first be identified and submitted to EPA for approval.

If the results of this sampling effort indicate a need to expand the investigation beyond the initial residence, a revised scope of work will be issued by EPA before further work is authorized.

Task 3 Work Assignment/Task Order Closeout (CO)

The Contractor shall perform the following efforts related to work assignment/task order close out.

- Return of documents to EPA or other document repositories
- File duplication, distribution, and storage
- File archiving to meet Federal Records Center requirements
- Use of microfiche, microfilm, or other EPA-approved data storage technology
- Prepare a Work Assignment/Task Order Close-out Report (WACR) in accordance with Regional guidance or other procedures as specified in the Work Assignment/Task Order. If the final hours/budget is greater than +/- 10% of the original approved work plan hours/budget, the WACR shall describe the circumstances that explain why this occurred.

| | Attachment 1- Summary of Major Submittals & Delivery Schedule | | | | | | | |
|------|---------------------------------------------------------------|------------------|---------------------------------------------------------|--|--|--|--|--|
| TASK | DELIVERABLE | NO. OF COPIES | DUE DATE (in calendar days) | | | | | |
| . 1 | Technical Assistance Letter Work Plan | 2 | 15 days after receipt of work assignment/task order | | | | | |
| 1 | Revised Technical Assistance Work Plan (if necessary) | 2 | 7 days after meeting/agreement of EPA comments | | | | | |
| 1 | Health and Safety Plan | 2 | 21 days after receipt of work assignment/task order | | | | | |
| 1 | QAPP | 2 | 21 days after receipt of work assignment/task order | | | | | |
| 1 | Field Sampling Plan | 2 | 21 days after receipt of work assignment/task order | | | | | |
| 2 | Data Evaluation | 2 | 21 days after completion of the investigation | | | | | |
| 3 | Final Summary Report | 2 | 30 days after completion of the investigation | | | | | |
| 3 | Work Assignment Closeout Report | 2 | As directed in Work Assignment Closeout Notification | | | | | |

| EPA WORK ASSIGNMENT FORM (WAF) FOR RAC | | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 1. WORK ASSIGNMEN | T (WA) INFORMATION | | | | | | |
| Project Name: Peck Iron at Activity: RI/FS Date: 05/06/2014 | nd Metal | Contractor: HGL EPA Contract No. Contractor Control | EP-S3-07- | 05 | WA No.: 044RICOA3Z4 Revision No.: 12 (Twelve) Modification No.: 274 | | |
| 2 DESCRIPTION OF A | CTION | · · · · · · · · · · · · · · · · · · · | | | (Contrac | ting Officer Use Only) | |
| New WA (need WP for the WA) . Attach SOW including schedule . Designate WAM WA Amendment (need revised WP and/or cost estimate) . Change in LOE or scope by task . Add additional tasks or funds for increased activity | | WP Disapproval S Final WP Approval (1) X Amendment to Final WP Approval . Approve change in LOE, | | Memorandum Details on scope, budget, or schedule Minor shift within SOW (no change in \$/LOE) Change WAM | | Incremental Funding . Fund approved WP WA Closeout Notification . Notify contractor to initiate WA closeout task . Revise EL after final invoice X_ Other Extend the Period of Perrformance | |
| 3. BUDGET INFORMA | TION . | | | | | | |
| Completion WA <u>X</u> Total Funding Receive | | Approved Work Plan Budget LOE (\$)* Term WAs Only | | | Expen LOE Term WAs o | diture Limits Not to Be Exceeded (\$)* | |
| Previous Total | · | 10,070 | 1, | 768,483 | 7,090 | 1,254,000 | |
| This Action New Total Funding Category: Bulk Activity Code: RICO | ፣ | | 11,173 | | 7,090 * Includes fe | 1,254,000 | |
| 4. WA COMPLETION I | | 31-2014 | Revis | ed: 09-30-2016 | l. | | |
| 5. EPA COMMENTS: This amendment approves the contractor's Work Plan and Cost Estimate, Addendum 1, dated 4/29/14 and extends the Period of Performance to 9/30/16. | | | | | | | |
| 6. APPROVALS | | | | | | | |
| Contractor Signatures: Site Manager/Firm | · · | | EPA Signatures: /s/_Debra Rossi Work Assignment Manager Phone Number | | ger | 05-06-2014 Date 215-814-3228 | |
| Program Manager/Firm | | Date | Proj | ect Officer ne Number | | 05-06-2014 Date 215-814-2997 | |
| _Approved As _X App Submitted Chang | proved With Not es Approved | 4 | Signature o | f Contracting Office | // Y, | 5' 6' 301'1 Date | |

Changes

Approved

Submitted

Signature of Contracting Officer,

| AMENDMENT OF SOLICITATION/MODIFI | CATION OF CONTRACT | Γ | CONTRACT ID CODE | | OF PAGES |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------------------------|-----------------------------|----------------------------|
| 2. AMENDMENT/MODIFICATION NO. | 3. EFFECTIVE DATE | 4. REQ | UISITION/PURCHASE REQ. NO. | | 1 10 T NO. (If applicable) |
| 0275 | See Block 16C | | | | |
| 6. ISSUED BY CODE | | 7. ADN | MINISTERED BY (If other than Item 6) | CODE | |
| REGION 3 US ENVIRONMENTAL PROTECTION 1650 ARCH STREET PHILADELPHIA PA 19103-2029 | L | | | | |
| 8. NAME AND ADDRESS OF CONTRACTOR (No., stre | et, county, State and ZIP Code) | (x) ^{9A} | AMENDMENT OF SOLICITATION NO. | | |
| HYDROGEOLOGIC INC | | | | | |
| 11107 SUNSET HILLS ROAD SUIT RESTON VA 20190-5309 | TE 400 | 9B | DATED (SEE ITEM 11) | | |
| | | | A. MODIFICATION OF CONTRACT/ORD P-S3-07-05 | DER NO. | |
| | | 101 | B. DATED (SEE ITEM 13) | | |
| CODE 193942604 | FACILITY CODE | 0 | 6/28/2007 | | |
| | 11. THIS ITEM ONLY AP | PLIES TO AMENDA | ENTS OF SOLICITATIONS | | |
| separate letter or telegram which includes a referen THE PLACE DESIGNATED FOR THE RECEIPT OI virtue of this amendment you desire to change an to to the solicitation and this amendment, and is received to the solicitation and PROPRIATION DATA (If received with the solicitation of the so | F OFFERS PRIOR TO THE HO ifer already submitted, such cha ed prior to the opening hour an | OUR AND DATE SP ange may be made | ECIFIED MAY RESULT IN REJECTION | OF YOUR OFFER. | If by |
| See Schedule | MODIFICATION OF CONTRAC | TE/ODDEDE IT M | ODIFIES THE CONTRACT/ORDER NO. | AC DECODIDED IN | ITEM 14 |
| 13. THIS TIEM ONLY APPLIES TO | MODIFICATION OF CONTRAC | 715/UKDEKS. 11 M | ODIFIES THE CONTRACT/ORDER NO. / | AS DESCRIBED IN | 11EM 14. |
| A. THIS CHANGE ORDER IS ISSUED ORDER NO. IN ITEM 10A. | PURSUANT TO: (Specify auth | hority) THE CHANC | GES SET FORTH IN ITEM 14 ARE MAD | E IN THE CONTRA | СТ |
| B. THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR | ACT/ORDER IS MODIFIED TO TH IN ITEM 14, PURSUANT TO | REFLECT THE AC O THE AUTHORITY | MINISTRATIVE CHANGES (such as ch OF FAR 43.103(b). | anges in paying offi | ce, |
| C. THIS SUPPLEMENTAL AGREEME | NT IS ENTERED INTO PURSU | UANT TO AUTHOR | ITY OF: | | 1 |
| D. OTHER (Specify type of modification | on and authority) | | | | * |
| X B.2, Work Assignmen | ts | | | | |
| E. IMPORTANT: Contractor X is not, | is required to sign this do | ocument and return | 0 copies to the | issuing office. | |
| 14 DESCRIPTION OF AMENDMENT/MODIFICATION DUNS Number: 193942604 | N (Organized by UCF section h | neadings, including | solicitation/contract subject matter where | e feasible.) | |
| The purpose of this Modific | ation is to issu | ue Revisio | n 17 to Work Assignm | ent 013TA | (A03P9 and |
| Revision 8 TO Work Assignme | nt 039TATA0311. | | | | |
| | | | | | |
| | | | | | * |
| | | | | | |
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| | | | | | |
| | | | | | |
| Except as provided herein, all terms and conditions of | the document referenced in Ite | | | | |
| 15A. NAME AND TITLE OF SIGNER (Type or print) | | | NAME AND TITLE OF CONTRACTING | OFFICER (Type o | r print) |
| | | | nn Robb | | |
| 15B. CONTRACTOR/OFFEROR | 15C. DATE | SIGNED 16B. | UNITED STATES OF AMERICA | 4 | 16C. DATE SIGNED |
| (Signature of person authorized to sign) | | 4 | (Signature of Contracting Officer) | | 9.11.14 |
| NSN 7540-01-152-8070 Previous edition unusable | | | | STANDARD F Prescribed by | ORM 30 (REV. 10-83) GSA |

Prescribed by GSA FAR (48 CFR) 53.243

| | EPA WORK ASS | SIGNMENT FOI | RM (W | AF) FOR RA | AC | |
|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| 1. WORK ASSIGNMEN | Γ (WA) INFORMATION | | | 1 | 2 | |
| Project Name: Hellertown | | Contractor: HGL EPA Contract No. | | | | 013TATA03P9 No.: |
| Activity: Technical Assist | ance | Contractor Control | | | | ation No.: 275 |
| Date:05/13/2014 | | Contractor Control | NO | | | ting Officer Use Only) |
| 2. DESCRIPTION OF A | CTION | | | | | |
| New WA (need WP for the WA) . Attach SOW including schedule . Designate WAM | WA Amendment (need revised WP and/or cost estimate) . Change in LOE or scope by task . Add additional tasks or funds for increased activity | — Partial WP Approduction — WP Disapproval — Final WP Approv — Amendment to Final WP Approval . Approve change in scope, or budget . Approve additional | wal Memorandum Details on scope, budget, or schedule proval Minor shift within SOW (no change in \$/LOE) to Final Change WAM te in LOE, the | | Incremental Funding . Fund approved WP WA Closeout Notification . Notify contractor to initiate WA closeout task . Revise EL after final invoice Other | |
| 3. BUDGET INFORMA | rion | | | - | | |
| Completion WA X | _Term WA | Approved W | Vork Plan l | Budget | Exper | diture Limits Not to Be Exceeded |
| Total Funding Receive | ed (\$) | LOE Term WAs Only | | (\$)* | LOE Term WAs | (\$)* only |
| Previous Total | * c | 762 | 7 | 70,650 | _762 | <u>70,650</u> |
| This Action | | 10 | 10 | 0 | 10 | 0 |
| New Total | | 772 * Includes fees | 27 | 70,650 | 772 * Includes f | <u>70,650</u> |
| Funding Category: <u>Bulk</u> | Funding | metudes rees | | | includes i | |
| Activity Code: <u>TATA</u> | S/SID:03P9 | | | | | |
| 4. WA COMPLETION | DATE Current: 12- | 31-2014 | Revis | sed: | | • |
| 5. EPA COMMENTS: | | | | | | |
| This amendment adds Lo | OE hours for the contractor | to prepare and submit t | he WP/CI | Σ. | | |
| | | | | | | |
| | | | | | | |
| | | | | | | , X |
| 6. APPROVALS | | × | | | | - |
| Contractor Signatures: | | 2 | EPA Si | gnatures: | | |
| Site Manager/Firm | | Date | Wo | oothy Gallagher rk Assignment Mana one Number | ger | 05-13-2014 Date 215-814-3196 |
| Program Manager/Firm | | Date | Pro | udette Reed ject Officer one Number | | 05-13-2014 Date 215-814-2997 |
| Approved As App | proved With Not | | Signature | of Contracting Office | er. | 5 - 17 2011/ Date |

| EPA WORK ASSIGNMENT FORM (WAF) FOR RAC | | | | | | |
|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. WORK ASSIGNMEN | Γ (WA) INFORMATION | | | | | |
| | | | | | | |
| Project Name: <u>Lehigh El</u> | ectric – OU1 Site Wide | Contractor: HGL | | | WA No.: | 039TATA0311 |
| Activity: Technical Assist | ance | EPA Contract NoI | EP-S3-07-0 | 05 | Revision | No.: <u>8 (Eight)</u> |
| Date: <u>05/27/2014</u> | | Contractor Control 1 | No | | | ation No.: <u>275</u> sting Officer Use Only) |
| 2. DESCRIPTION OF A | CTION | | | | | |
| New WA (need WP for the WA) . Attach SOW including schedule . Designate WAM | X WA Amendment (need revised WP and/or cost estimate) Change in LOE or scope by task Add additional tasks or funds for increased activity | — Partial WP Appro — WP Disapproval — Final WP Approv — Amendment to Fi WP Approval Approve change in scope, or budget Approve additional | Memorandum Details on scope, budget, or schedule Minor shift within SOW (no change in \$/LOE) Change WAM LOE, X Set or revise expenditure limit (EL) | | budget, or n SOW LOE) | Incremental Funding . Fund approved WP WA Closeout Notification . Notify contractor to initiate WA closeout task . Revise EL after final invoiceOther |
| 3. BUDGET INFORMA | ΓΙΟΝ | | | | | |
| Completion WA X | _Term WA | Approved W | ork Plan I | Budget | Exper | nditure Limits Not to Be Exceeded |
| Total Funding Receive | ed (\$) | LOE Term WAs Only | | (\$)* | LOE Term WAs | (\$)* |
| Previous Total | | 1267 | _1 | 78,838 | 1267 | 178,838 |
| This Action | | 10 | | 10,000 | 10 | 10,000 |
| New Total | | 1277 | 1 | 88,838 | 1277 | 188,838 |
| Funding Category: Bulk | Funding | * Includes fees | | | * Includes f | ees |
| Activity Code: TATA | · | 2 | | | | |
| 4. WA COMPLETION I | 8 | 31-2014 | Revis | ed. | | |
| 5. EPA COMMENTS: | DATE Cuitone. 12- | 51-2014 | 10011 | | | |
| | mit a WP/CE in accordance | with the attached Statem | ont of W | nels | | |
| The contractor shall sub- | mit a WF/CE in accordance | with the attached States | icht of we |)1 K. | | |
| | | | | | | |
| | | | | | | |
| 1 | | . \ | | 8 | | |
| 6. APPROVALS | | | | | | |
| Contractor Signatures: | | | EPA Si | gnatures: | | |
| Site Manager/Firm | | Date | Wo | Schrock rk Assignment Mana one Number | ger | 05-27-2014 Date 215-814-3210 |
| Program Manager/Firm | | Date | Pro | udette Reed ject Officer ne Number | | 05-27-2014 Date 215-814-2997 |
| X_Approved As A Submitted Chang | pproved With Not ges Approved | | Signature of | of Contracting Office | 1 | 5 17 1/1/ Date |

RAC II NATIONAL STATEMENT OF WORK FOR TECHNICAL ASSISTANCE (TA)

Lehigh Electric and Engineering Site, Lackawana County, Pennsylvania

Contract No:

Work Assignment/Task Order No:

Introduction

PURPOSE

The purpose of this work assignment/task order is to continue implementing a technical Investigation at the Lehigh Electric and Engineering Site in accordance with the objectives and recommendations outlined in the most recent Five Year Review. This statement of work (SOW) sets forth the framework and requirements for this effort. The Five Year Review which is the basis for this SOW was issued on February 3, 2010. The goal for completion of this technical investigation is February 1, 2012.

DESCRIPTION SITE AND FIVE YEAR REVIEW

The Lehigh Electric and Engineering Site (the Site) is located in Old Forge Borough, Lackawanna County, Pennsylvania and consists of a 5.5-acre area historically operated as part of a coal processing facility. From the mid-1970s until 1981, the Site served as an electrical equipment repair and storage yard. Approximately 4,000 transformers and capacitors were stored at the facility and improper handling and disposal of dielectric fluids containing polychlorinated biphenyls (PCBs) resulted in soil and debris contamination.

Following discovery of the Site in 1981, the U.S. Environmental Protection Agency (EPA) conducted a Removal Action consisting of the removal and offsite disposal of transformers, capacitors, and other PCB-contaminated materials. The removal action was designated Phase I of the Site remediation. This action was completed in October 1982 and the Site was listed on the National Priorities List on September 8, 1983.

The Record of Decision (ROD) for the Site was signed on February 11, 1983. The remedy, designated as Phase II of the Site remediation, consisted of the excavation and offsite disposal of soil with PCB concentrations exceeding 50 milligrams per kilogram (mg/kg), removal of debris, demolition of on site buildings, and backfilling, capping, grading, and vegetating the Site to minimize erosion, control surface water percolation and runoff. No impact to groundwater was anticipated at the time of the ROD. Phase II was completed on September 15, 1984 and the Site was deleted from the NPL on March 7, 1986.

Operations and Maintenance (O&M) activities at the Site are conducted by the Pennsylvania Department of Environmental Protection (PADEP).

RAC II Model Technical Assistance SOW

Institution Controls (ICs) are in place in the form of a PADEP Hazardous Sites Cleanup Act Section (HSCA) 512 Order for the 5.5 acre portion of the Site historically impacted by PCBs. The order prohibits disturbance of the Site cap, use of groundwater at the property, and any actions which would otherwise impact the remedy.

Groundwater sampling conducted at the Site by both EPA and PADEP following the completion of the remedy indicated groundwater contamination by PCBs at concentrations up to 95,000 µg/L. Additional monitoring wells have been installed and sampled to further evaluate the groundwater contamination and potential migration. Results of the additional investigation indicate that the maximum PCB concentration in onsite groundwater has declined significantly to 17 µg/L as of April/May 2009. This concentration exceeds the Maximum Contaminant Level (MCL) of 0.5 µg/L. Current groundwater flow data indicates that contaminated groundwater is not migrating from the property.

Vapor intrusion is not a concern at this Site because the PCBs are not volatile, TCB concentrations have remained below MCLs and the closest residences are over 400 feet from the known extent of contamination.

Recent surface soil sampling indicated that soil contamination exists in the vicinity of an onsite drainage culvert on the western portion of the Site. The maximum concentration was below the soil cleanup criteria of 50 mg/kg require by the ROD, but exceeded EPA Region 3's Biological Technical Assistance Group (BTAG) Freshwater Sediment Screening Benchmark. Additional data were collected and have resolved current issues including minimal ecological risk.

GENERAL REQUIREMENTS

The Technical Assistance Investigation SOW shall be specifically based on proposed objectives described below.

The objectives of the sampling to be conducted in preparation for an upcoming 5-Year Review of the remedy for this site. The primary task is collect surface soil and sediment from the floodplain and river bottom of the Lackawanna River adjacent to the site to the confluence with the Susquehanna River to determine if ecological risk exist from the contamination found on site.

PROPOSED ACTIVITIES

Collect up to 15 surface soil and sediment samples from both upstream and downstream along the banks of the Lackawanna River to the confluence of the Susquehanna River and analyze samples for PCBs

Collect water quality parameters at all sediment sampling locations. Record sampling locations using a global positioning system (GPS) device Update all tables and graphs associated with the previous 5-year review

RAC II Model Technical Assistance SOW

- The contractor shall furnish personnel, services, materials and equipment to provide the required technical assistance in accordance with this Statement of Work
- The contractor shall also compile analytical data from all sampled media and assist EPA with tables and figure to be incorporated in the Five Year Review.
- The contractor shall also assist with review of data from A4 Laboratory analysis that may have been previously collected.
- The contract work breakdown structure (WBS) shall be used for project scoping, scheduling, and technical and cost tracking and reporting under this work assignment/task order.
- The summary of major deliverables and delivery schedule for this work assignment/task order is specified in Attachment 1.
- In all cases, the contractor shall use the most recently issued guidance.
- The contractor shall maintain work assignment/task order activity files as specified in the contract and by the Work Assignment Manager (WAM)/Contracting Officer Representative (COR).
- The contractor shall communicate as needed with the Work Assignment Manager WAM/COR, either in face-to-face meetings or through conference calls. Of the meeting or conversation.
- EPA will provide oversight of contractor activities throughout the work assignment/task order. EPA review and approval of deliverables is a tool to assist this process and to satisfy, in part, EPA's responsibility to provide effective protection of public health, welfare, and the environment. Acceptance of contractor submittals by EPA does not relieve the contractor from responsibility for the adequacy of the deliverables or their professional responsibilities.

RECORD KEEPING REQUIREMENTS

Maintain all technical and financial records for technical assistance in accordance with the contract. At the completion of the work assignment/task order, submit an official record of the technical assistance in both compact disk and a hardcopy to the WAM/COR. Provide the deliverables using electronic media.

USEPA PRIMARY CONTACTS

The primary contact for this work assignment/task order is Roy Schrock. He can be reached at (215) 814-3210, via facsimile at (215) 814-3002or via e-mail at schrock.roy@epa.gov. His mailing address is US EPA Region III, Mail Code (3HS22) 1650 Arch Street, Philadelphia, PA 19103. The secondary contact is Kristine Matzko. She can be reached

RAC II Model Technical Assistance SOW

at (215) 814-5719, via facsimile (215) 814-3002 or via e-mail at Matzko.kristine@epa.gov. Her mailing address is US EPA Region III, Mail code (3HS22) 1650 Arch Street, Philadelphia, PA 19103.

WORK ASSIGNMENT/TASK ORDER COMPLETION DATE & PROJECT CLOSEOUT

At the completion of the work assignment/task order, the contractor shall perform all necessary closeout activities as specified in the contract. These activities include closing out any subcontracts, indexing and consolidating project records and files as required above, and providing a technical and financial closeout report to EPA. The estimated date for completion of all technical activities and closeout activities for this work assignment/task order is

Task 1 Project Planning and Support (PP)

The contractor shall perform the following activities to initiate and manage the work assignment/task order.

Develop Work Plan. The contractor shall prepare and submit a work plan within 20 calendar days after receipt of the work assignment/task order. The contractor shall use information from this SOW and technical direction provided by the EPA WAM/COR as the basis for preparing the work plan. The work plan shall include a description of project tasks, the procedures and estimated costs to accomplish tasks, project documentation, and project schedule. The contractor shall use their quality assurance/quality control (QA/QC) systems and procedures to assure that the work plan and other deliverables are of professional quality requiring only minor revisions. Specifically, the work plan shall include the following:

Identification of tasks described in the SOW. Output of this task will be a detailed work breakdown structure of the project.

The contractor's technical approach to each task to be performed; any information to be produced during and at the conclusion of each task; and a description of the work products that will be submitted to EPA. Information shall be presented in a sequence consistent with the SOW.

A schedule with specific dates for completion of each required activity and submission of each deliverable required by the SOW. This schedule shall also include information regarding timing, initiation, and completion of all critical path milestones for each activity and deliverable and the expected review time for EPA.

A list of key contractor personnel providing support on the work assignment/task order.

Estimated costs for performing work assignment/task order tasks presented at the task level

RAC II Model Technical Assistance SOW

and the overall work assignment/task order level.

Perform Site-specific Project Management. The contractor shall provide general work assignment/task order management and coordination to implement the work assignment/task order described in this SOW. The contractor shall prepare monthly progress reports in accordance with contract requirements. The contractor shall manage and track costs and prepare and submit invoices. The contractor shall report costs and level of effort (by P-level) for the reporting period as well as cumulative amounts expended to date. Periodically, during the course of the work assignment/task order, the WAM/COR may request actual costs to date by work breakdown structure (WBS) element. For budgeting purposes, the contractor shall assume 3 of these requests.

Update the Health and Safety Plan (HASP). The contractor shall prepare a site-specific HASP that specifies employee training, protective equipment, medical surveillance requirements, standard operating procedures, and a contingency plan in accordance with 40 CFR 300.150 of the NCP and 29 CFR 1910.120 1(1) and (1)(2). A task-specific HASP must also be prepared to address health and safety requirements for site visits.

Update Site-Specific Plans: The contractor shall develop the following site-specific plans. The contractor shall develop a draft plan for EPA review, then incorporate EPA comments to produce the final plan.

Update Field Sampling Plan (FSP). Prepare a Field Sampling Plan (FSP) that defines the sampling and data collection methods that shall be used for the project. The FSP shall include sampling objectives; sample locations and frequency; sampling equipment and procedures; sample handling and analysis; and a breakdown of samples to be analyzed through the Contract Laboratory Program (CLP) and through other sources, as well as the justification for those decisions. The FSP shall consider the use of all existing data and shall justify the need for additional data whenever existing data will meet the same objective. The FSP shall be written so that a field sampling team unfamiliar with the site would be able to gather the samples and field information required. The contractor shall document any required changes to the FSP in a memorandum to the WAM/COR.

Develop Quality Assurance Project Plan (QAPP). The contractor shall prepare a Quality Assurance Project Plan (QAPP) in accordance with EPA QA/R-5 (latest draft or revision). The QAPP shall describe the project objectives and organization, functional activities, and quality assurance/quality control (QA/QC) protocols that shall be used to achieve the desired Data Quality Objectives (DQOs). The DQOs shall, at a minimum, reflect use of analytical methods for identifying contamination and addressing contamination consistent with the levels for remedial action objectives identified in the National Contingency Plan. The QAPP developed for the RI/FS should be referenced or adapted whenever possible when preparing the QAPP for the RI/FS.

Team or Pool Subcontract Management. If the contractor proposes utilization of a team or

RAC II Model Technical Assistance SOW

pool subcontractor to implement any portion of the work outlined in this SOW, the contractor shall incorporate the effort associated with management of the team or pool subcontractor under this SOW element.

- Task 2 Expert Technical Assistance (ET) N/A
- Task 3 Work Assignment/Task Order Closeout (CO)

The Contractor shall perform the following efforts related to work assignment/task order close out.

Return of documents to EPA or other document repositories File duplication, distribution, and storage

| Attachmer | t 1- Summary of Major Submittals & Delivery Schedu | ile | |
|-----------|----------------------------------------------------|---------------|---------------------------------------------------------|
| TASK | DELIVERABLE | NO. OF COPIES | DUE DATE (in calendar days) |
| 1 | Technical Assistance Work Plan | 3 | 21 days after receipt of work assignment/task order |
| 1 | Monthly Progress Reports | 3 | In accordance with contract requirements |
| 2 | Work Assignment Closeout Report | 3 | As directed in Work Assignment Closeout Notification |

| AMENDMENT OF SOLICITATION/MODIFIC | ATION OF CONTRACT | | CONTRACT ID CODE | | PAGE OF | PAGES |
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| | | , | | | 1 | 20 |
| 2. AMENDMENT/MODIFICATION NO. | 3. EFFECTIVE DATE | | UISITION/PURCHASE REQ. NO. Schedule | 5. PR | ROJECT NO | . (If applicable) |
| 0276 6. ISSUED BY CODE | See Block 16C | | MINISTERED BY (If other than Item 6) | CODI | = 1 | * |
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| REGION 3 US ENVIRONMENTAL PROTECTION 1650 ARCH STREET PHILADELPHIA PA 19103-2029 | AGENCY | | | | | |
| 8. NAME AND ADDRESS OF CONTRACTOR (No., street | t, county, State and ZIP Code) | (x) 9A | AMENDMENT OF SOLICITATION NO. | | | |
| HADDOCEOLOCIC INC | | 1 | | | | j. |
| HYDROGEOLOGIC INC 11107 SUNSET HILLS ROAD SUIT | F. 400 | 9B | DATED (SEE ITEM 11) | | | |
| RESTON VA 20190-5309 | | | | | | |
| | | 10 | A. MODIFICATION OF CONTRACT/ORDER | R NO. | | |
| | | | 2-83-07-05 | | | |
| | | | | | | |
| | 15.00.50 | | B. DATED (SEE ITEM 13) | | | |
| CODE 193942604 | FACILITY CODE | 1 | 6/28/2007 | | | |
| The above numbered solicitation is amended as set for | 11. THIS ITEM ONLY APPLIES TO | | | xtended, | ∏is not e | |
| separate letter or telegram which includes a reference THE PLACE DESIGNATED FOR THE RECEIPT OF virtue of this amendment you desire to change an offe to the solicitation and this amendment, and is receive | e to the solicitation and amendment nur OFFERS PRIOR TO THE HOUR AND er already submitted, such change may d prior to the opening hour and date sp | mbers. FA DATE SP y be made | ECIFIED MAY RESULT IN REJECTION OF by telegram or letter, provided each telegrar | TO BE RE YOUR C | ECEIVED A OFFER. If by makes refe | T y |
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| ORDER NO. IN ITEM 10A. | PURSUANT TO: (Specify authority) Ti | HE CHANG | GES SET FORTH IN ITEM 14 ARE MADE II | N THE CO | JNTRACT | |
| B. THE ABOVE NUMBERED CONTRA appropriation date, etc.) SET FORT | CT/ORDER IS MODIFIED TO REFLEC H IN ITEM 14, PURSUANT TO THE AI | CT THE AL | DMINISTRATIVE CHANGES (such as chang Y OF FAR 43.103(b). | ges in pay | ring office, | |
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| D. OTHER (Specify type of modification | and authority) | | | | | * |
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| | is required to sign this document | | 0 | | | |
| E. IMPORTANT: Contractor is not, 14. DESCRIPTION OF AMENDMENT/MODIFICATION | | | | | | |
| DUNS Number: 193942604 | (Organized by OCF section headings, | , including | Solicitation/contract Subject matter where re | asible.) | | |
| See Item 14 Continuation | | | | | | |
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| Except as provided herein, all terms and conditions of | he document referenced in Item 9A or | | | | | |
| 15A. NAME AND TITLE OF SIGNER (Type or print) | | 16A | NAME AND TITLE OF CONTRACTING O | FFICER (| Type or prii | it) |
| | | Jo | hn Robb | | | |
| 15B. CONTRACTOR/OFFEROR | 15C. DATE SIGNED |) 16B | UNITED STATES OF AMERICA | | 1 | 6C. DATE SIGNED |
| | n . | | HIM MINI | | | N/2 10 5 , Dall |
| (Signature of person authorized to sign) | | 1 | (Signature of Contracting Officer) | 0=1:: | ADE === | 06 03 801 |
| NSN 7540-01-152-8070 Previous edition unusable | | | | | ARD FORM bed by GSA | 1 30 (REV. 10-83) |
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| CONTINUATION SHEET | EP-S3-07-05/0276 | 2 | 20 |

NAME OF OFFEROR OR CONTRACTOR

| ITEM NO. | SUPPLIES/SERVICES | QUANTITY | 1 1 | UNIT PRICE | AMOUNT |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----|------------|----------|
| (A) | (B) | (C) | (D) | (E) | (F) |
| 0053 | Add Item 0053 as follows: Add SSC funds for Remedial Action activities at the Standard Chlorine SF Site (03H6) under RACs contract EPS30705, HGL, WA #060. Obligated Amount: \$20,000.00 Requisition No: PR-R3-14-00244 | | | | 20,000.0 |
| | Accounting Info: 14-TR1-3AS0RH6-303DD2-2505-03H6RA03-C004-143ASC100 1-001 BFY: 14 Fund: TR1 Budget Org: 3AS0RH6 Program (PRC): 303DD2 Budget (BOC): 2505 Job #: 03H6RA03 Cost: C004 DCN - Line ID: 143ASC1001-001 Funding Flag: Partial Funded: \$20,000.00 | | | | |
| | Add Item 0054 as follows: | | | | |
| 0054 | Add special account funds for Technical Assistance activities at the Bendix Flight System Division SF Site (03H7) under RACs Contract EPS30705, HGL, WA #33. Obligated Amount: \$36,000.00 Requisition No: PR-R3-14-00268 | | | | 36,000.0 |
| | Accounting Info: 14-TR2B-03S0XH7-303DD2-2505-C001-1403SK1044-001 BFY: 14 Fund: TR2B Budget Org: 03S0XH7 Program (PRC): 303DD2 Budget (BOC): 2505 Job #: 03H7TA01 Cost: C001 DCN - Line ID: 1403SK1044-001 Funding Flag: Partial Funded: \$36,000.00 | | | | |
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Modification 276

Item 14 Continuation

- 1. The authority for this modification is Clause B.2, Work Assignments; B.4, Estimated Cost and Fixed Fee; B.6, Limitation of Funds Notice and H.24, Option for Increased Quantity Term Form Segment.
- 2. The purpose of this modification is to Exercise Four (4) Term Form Option Increments, Obligate funding and Issue Work Assignments.
- 3. In accordance with Section H, paragraph H.24, "Option for Increased Quantity Term Form Segment", Four (4) 10,000 direct labor hour options are hereby exercised.

As a result thereof, Section B, Paragraph B.4, Estimated Cost and Fixed Fee (EP 52.216-190) is modified as follows:

| | Estimated Cost Thru MOD 255 | Increase by this Modification | Total Cost | Estimated |
|------------------------------|--------------------------------|-------------------------------|---------------|-----------------|
| (a) Term Form Segment | | | | |
| Estimated Cost | \$ Tracm | ption | (h) | (1) |
| Fixed Fee | ı Xem | ЬСТОП | (Ω) | (4) |
| Total | \$ | | | |
| (b) Subcontracting Pool | | | | |
| Estimated Cost | \$F320m | ption | (h) | (1) |
| Fixed Fee | | ЬСТОП | (Ω) | (4) |
| Total | \$, . | | | |
| (c) Total Contract (a) + (b) | • | | | |
| Estimated Cost | \$F3z0mi | otion | (h) | (1) - |
| Fixed Fee | LXeIII] | | (Ω) | (4) |
| Total | \$37,766,508.00 | \$4,754,964 | .00 | \$42,521,472.00 |

4. Section B, Paragraph B.6, Limitation of Funds Notice (EP 52.232-100) is modified as follows:

| | Contract Funding Thru MOD 274 | Changes Under MOD | This | Total Funding |
|-------------------|-------------------------------|-------------------|------------|-----------------|
| Term Form Segment | | | | |
| Estimated Cost | \$T.570m70 | + | / h | \ / / \ \ \ |
| Fixed Fee | Exemp | CTOH | (Ω) | / (4/_ |
| Total | \$30,660,537.37 | \$56,000.00 | 1 | \$30,716,537.37 |

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Page 4 of 20

5. Issue Revision 9 to Work Assignment 033TATA03H7 and Initial Work Assignment

060RARA03H6.

EP-S3-07-05/0276

| | EPA WORK ASS | IGNMENT FOR | M (W | AF) FOR RA | AC | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|----------------------------------------------------------------------------------------------------|---------------------------------------------------|
| 1. WORK ASSIGNMEN | Γ (WA) INFORMATION | | | | | | |
| Project Name: Bendix Activity: Technical As Date: 05-27-14 (Contracting Officer Use O | _ | 1 Contractor: He EPA Contract Contractor Con | No. <u>EP</u> - | S3-07-05 | Revision | 033TATA03H7 No.:9 (Nine) tion No.:_276 | |
| 2. DESCRIPTION OF A | | 9 | | | | | |
| New WA (need WP for the WA) Attach SOW including schedule Designate WAM | WA Amendment (need revised WP and/or cost estimate) . Change in LOE or scope by task . Add additional tasks or funds for increased activity | — Partial WP Approval — WP Disapproval — Final WP Approval X Amendment to Fi WP Approval Approve change in I scope, or budget Approve additional te | l nal .OE, | Technical Direct Memorandum Details on scope, schedule Minor shift within (no change in \$/L Change WAM X Set or revise of limit (EL) | budget, or n SOW LOE) | Incremental F . Fund approved WA Closeout . Notify contract closeout task . Revise EL after Other | WP Notification or to initiate WA final invoice |
| 3. BUDGET INFORMA | ΓΙΟΝ | | | 2. | | | 1 |
| Completion WA X Total Funding Receive Previous Total 53,12c This Action 36,000 New Total 89,12c Funding Category: Site Activity Code: TA 8 4. WA COMPLETION D 5. EPA COMMENTS: | ed (\$) 4 2 -Specific +Bulk S/SID: 03H7 | Approved Wo LOE Term WAs Only | _2 | (\$)* 06,914 66,000 72,914 Includes fees | Expen LOE Term WAS 0 | <u> </u> | o Be Exceeded (\$)* |
| | nendment approves the contr s the Funding listed on Revis | | an and C | ost Estimate, dated | May 9 th , 2014 | 1. | |
| 6. APPROVALS | | | | , | | | 75 |
| Contractor Signatures: Site Manager/Firm Program Manager/Firm | | Date | /s/ <u>Josh</u> Work A | gnatures: ua Barber ssignment Manager udette Reed | | 05-27-2014 Date 05-27-2 | |
| | pproved With Not tes Approved | | Proj | ect Officer Acting Officer, | - | Date | 3 · 701/ |

| | EPA WORK ASS | SIGNMENT FO | RM (W | AF) FOR RA | AC T | | | |
|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|----------------------------------------------------------------------|----------------------------------------------|------|
| 1. WORK ASSIGNMEN | T (WA) INFORMATION | | | | | | | |
| Project Name: <u>Standard Cl</u> | hlorine of DE – OU3 | Contractor: HGL | | <u>.</u> | | 060RARA03 | | |
| Activity: Remedial Action | 1 | EPA Contract No. <u>I</u> | EP-S3-07-0 | 5 | Revision | No.: <u>0 (Initi</u> | <u>al)</u> | |
| Date: <u>05/27/2014</u> | | Contractor Control N | lo | | | tion No.: 276 ting Officer U | | |
| 2. DESCRIPTION OF A | CTION | | | | | | | |
| X New WA (need WP for the WA) Attach SOW including schedule Designate WAM | _ WA Amendment (need revised WP and/or cost estimate) . Change in LOE or scope by task . Add additional tasks or funds for increased activity | — Partial WP Approval — WP Disapproval — Final WP Approv — Amendment to Fi WP Approval . Approve change in scope, or budget . Approve additional | ral nal LOE, | Technical Direct Memorandum . Details on scope, schedule . Minor shift within (no change in \$/I. Change WAM Set or revise ex limit (EL) | budget, or n SOW LOE) | . Fund appro WA Clo . Notify con closeout to . Revise EL | seout Notification ntractor to initiate W | |
| 3. BUDGET INFORMA | TION | | - | | | 9 | | |
| Completion WA X Total Funding Receive | 9 | Approved W | ork Plan E | Budget (\$)* | Exper LOE | nditure Limits | Not to Be Exceeded (\$)* | l |
| Total Funding Receive | eu (a) | Term WAs Only | | (Φ) | Term WAs | only | (4) | |
| Previous Total0 | ! | 0 | | 0 | 0_ | | 0 | |
| This Action | | 0 | | 0 | 200_ | | 20,000 | |
| New Total 20,000 Funding Category: Site-S | | * Includes fees | 1 | 0 | * Includes f | ees | _20,000 | |
| Activity Code: RARA | S/SID: <u>03H6</u> | | | | | | | |
| 4. WA COMPLETION I | DATE Current: 04- | 30-2016 | Revis | ed: | | | | |
| 5. EPA COMMENTS: | | | | | | | | |
| This amendment allows t | the contractor to attend a Sc | oping Meeting, and to pr | epare and | submit a WP/CE i | n accordance | with the atta | ched Statement of | Work |
| <u>u</u> | | | | | | | | |
| | | | | | | | | |
| 6. APPROVALS | | | | 5.1 | | / | | |
| Contractor Signatures: | | | EPA Sig | gnatures: | | | | |
| Site Manager/Firm | | Date | | l White k Assignment Mana ne Number | ger | 21 | 05-27-2014 Date 15-814-3217 | |
| Program Manager/Firm | | Date | Proj | ect Officer ne Number | | 2 | 05-27-2014 Date 15-814-2997 | |
| Approved AsX_ A Submitted Chang | pproved WithNot ges Approved | | Signature o | AMM A | er, | | 04 3 . 24 Date | 314 |

RAC II MODEL STATEMENT OF WORK FOR REMEDIAL ACTION STANDARD CHLORINE OF DE OPERABLE UNIT 3 NEW CASTLE COUNTY, DELAWARE

May 5, 2014

Contract No: EP-S3-07-05

Work Assignment/Task Order No: 060-RARA-03H6

Introduction

PURPOSE

The purpose of this work assignment/task order is to implement the remedial action (RA) at Standard Chlorine of Delaware Operable Unit 3 in accordance with the objectives of the remedial design (RD) finalized in June 2012. This statement of work (SOW) sets forth the framework and requirements for this effort. The record of decision (ROD), issued on September 29, 2010 defines the selected remedy. The RA is the implementation phase of site remediation or construction of the remedy, including necessary operation and maintenance (O&M), performance monitoring, and any special requirements. The RA is based on the RD, which is designed to achieve the remediation goals specified in the ROD. Implementation of the RA involves the procurement of a subcontractor(s) and management activities, in addition to technical engineering services. The goal for completion of this RA is April 2016.

SITE DESCRIPTION

The Site is located in New Castle County, Delaware. The Site is located approximately 3 miles northwest of Delaware City, Delaware, west of Route 9 (River Road) and south of Red Lion Creek (See Figure 1). The Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) identification number for the Site is DED041212473.

The Site is approximately 65 acres in area, and contains a fenced area that is the former site of the Standard Chlorine of Delaware, Inc. (later Metachem Products, LLC) chlorobenzene manufacturing plant (hereafter referred to as SCD/Metachem Facility or Facility).

The major components of the selected remedy include:

Construction of a surface cap compliant with the applicable hazardous waste regulations. The requirement to construct a liner system beneath the waste is being waived due to the functional equivalence of the previously-constructed subsurface containment system. The surface cap will cover approximately 22.8 acres of the former plant area and will be constructed of multiple layers of soil and geosynthetic materials. A soil gas collection and treatment system will be constructed as part of the surface cap. Additional site preparation will be required for cap construction because of the remaining subsurface and surface structures and debris located in the area to be capped.

GENERAL REQUIREMENTS

This is a term-form work assignment/task order that requires the contractor to complete an RA that meets the objectives and performance criteria specified in the ROD issued on September 29, 2010 and the RD. Furnish all necessary and appropriate personnel, including subcontractors, materials, and services needed for, or incidental to, performing and completing the RA. The RA and associated deliverables under this work assignment/task order shall be consistent with the RODs, the *Remedial Design/Remedial Action (RD/RA) Handbook* (U.S. EPA Office of Solid Waste and Emergency Response (OSWER) 9355.0-04B, EPA 540/R-95/059, June 1995), and all other guidance used by EPA in conducting an RA (Attachment 3).

The RA implementation shall be specifically based on the July 2012 Remedial Design. The general requirements of the remedial action are as follows:

Description of the Surface Cap

- 1. The Selected Remedy will prevent exposure to OU3 soil and soil gas contaminants by installing a cap cover system. The cap shall be designed to meet the applicable or relevant and appropriate landfill requirements as detailed in Table 17 [in the September 29, 2010 ROD], with the exception of the requirement for a liner system, which is being waived.
- 2. All waste located within OU3 will be consolidated to within and below the cap. Demolition of structures and foundations, crushing of concrete and removal of uncontaminated recyclable material (metal, etc.) from the area to be capped shall be completed. Existing grades would be essentially maintained except for what is required to establish a smooth uniformly graded and well-draining surface. The applicable portions of the Delaware Air Quality Management Regulations shall be met during grading of the contaminated soils.
- 3. Stormwater management controls, such as perimeter drainage swales and detention ponds, shall be incorporated into the design. The stormwater management controls shall meet the applicable requirements of the Delaware Surface Water Quality Standards at Sections 1-7, 9, and 10.
- 4. If the final cap design calls for a vegetative cover layer, the vegetative cover layer shall be planted with a native mix seed to reduce the need for mowing and maintenance.
- 5. Soil gas will be managed using a gas venting layer within the cap, gas vents to vent soil gas collected within the cap venting layer, and perimeter gas monitoring wells to monitor landfill gas to ensure that the gas is not migrating off Site.
- 6. Operate and maintain the cap cover system to ensure the integrity of the engineered remedy.
- 7. Substantive portions of the following applicable requirements shall be met during construction: State of Delaware Regulations Governing the Construction and Use of Wells, Sections 1-6, 8-10; State of Delaware Statute Regarding Licensing of Water Well Contractors, Pump Installer Contractors, Drillers, Pump Installers, Septic Tank Installers, Liquid Waste Treatment Plant Operators and Liquid Waste Haulers, 7 Del. Code § 6023.

The RA shall be complete when the contractor constructs the following remedial action components (language taken directly from the RD):

2.4.1 Contaminated Soil Subgrade Structural Fill

The subgrade is designed with 4.5 percent minimum side slopes, grading from the high point in the center of the site outward in all directions. The design approach attempts to balance the excavation and fill quantities across the site. Surface water control berms graded into the cap area direct water to the north at a minimum 1.0 percent slope to facilitate surface water flow to the detention ponds. Sheet 6 (Appendix A) depicts the subgrade plan. The subgrade will be compacted with appropriate compaction equipment and finely graded to prepare a suitable surface to support the overlying geosynthetics and cover materials. Imported subgrade materials are to be free of regulated hazardous materials. Within the multi-layer cap area, the subgrade will consist of in situ contaminated soils, demolition materials, and contaminated soils excavated from grading the site and then placed as fill. A maximum particle size has been specified and the materials will be placed per the specifications (see Appendix 1).

The Contractor will be required to perform the following tasks during construction of structural fill:

- Place and compact lifts of structural fill with a thickness of 18 inches after compaction.
- Integrate each lift into the previous lift by such techniques as scarifying each lift and using compaction equipment appropriate to achieve the required compaction.
- Compact each soil lift thoroughly and uniformly. Proof-roll each lift with rubber-tired equipment weighing a minimum of 15 tons and monitor deflection. Any areas exhibiting deflections greater than 2 inches must be reworked until desired deflection criteria are met.

2.4.1.1 Clay Plug

A soil/bentonite containment barrier wall encompasses the site for an area greater than the area to be capped. An additional soil plug will be installed along the northern perimeter of the cap limits to create an additional vertical barrier to the transport of vapor phase contaminants and improve the soil vapor recovery within the

capped area. Cohesive soils will need to be imported from an off-site source to construct a 4-foot-wide by 8-foot-deep soil plug that traverses the northern boundary of the multi-layer cap. This plug will key into the on-site soil/bentonite barrier wall on the east and west sides of the cap.

2.4.2 Subgrade Separation Geotextile

An 8 oz/yd2 nonwoven needle-punched geotextile layer will serve as a separation layer between the subgrade and the sand venting layer to prevent the sand from migrating into the subgrade during construction. The separation geotextile must meet or exceed the minimum requirements specified for "Class 2" or "Class 1" separation geotextiles, as defined in Geosynthetics Research Institute Specification GT13a, latest revision, or AASHTO M288-00. The separation geotextile must be compatible with the soil gas constituents and tested prior to procurement. Compatibility analysis will consist of strength testing and verification of any change in apparent opening size. Materials cannot diminish in strength or change in apparent opening size during exposure to site contaminants as per the technical specifications for separation geotextiles. Testing will occur with an initial baseline test, and at subsequent 14-day intervals for 3 months. The geotextile separation layer will be installed in accordance with the specifications in Appendix 1.

2.4.3 Sand Venting Layer and Soil Gas Collection Piping

The 12-inch sand venting layer will facilitate a flow pathway for soil gas present in the subgrade that could become trapped after the cap is installed. Trapped gas will migrate through the sand venting layer to the type 316L schedule 10S stainless steel piping gas venting system. Sheets 7 and 13 (Appendix A) depict the gas collection system plan and piping details.

The sand venting layer will consist of clean sand with no debris or angular stones. It will be tested for grain size per ASTM D422 and have particles with 100 percent finer than 3/8-inch and with a maximum 5 percent of the particles passing the No. 200 sieve. The sand venting layer will be placed using low ground pressure equipment on top of the underlying separation geotextile. Roadways consisting of the sand venting layer material will be used to transport material over the separation geotextile. There must be at least 3 feet of sand venting layer material over the geotextile separation layer materials at all times during construction, and excessive rutting must be prevented.

2.4.4 Low Permeability Soil Separation Geotextile

An 8 oz/yd2 nonwoven needle-punched geotextile layer will serve as a separation layer between the sand venting layer and the low permeability compacted soil layer to prevent the sand from migrating into the low permeability compacted soil layer and to facilitate compaction. The separation geotextile will meet or exceed the minimum requirements specified for a "Class 2" or "Class 1" separation geotextile, as defined in the Geosynthetics Research Institute Specification GT13a, latest revision, or AASHTO M288-00. The separation geotextile must also be compatible with the soil gas constituents and tested prior to procurement. Compatibility analysis will consist of strength testing and verification of any change in apparent opening size. Materials cannot diminish in strength or change in apparent opening size during exposure to site contaminants as per the technical specifications for separation geotextiles. Testing will occur with an initial baseline test, and at subsequent 14-day intervals for 3 months. The geotextile separation layer will be installed in accordance with the specifications included in Appendix I.

2.4.5 Low Permeability Compacted Soil Layer

A minimum 2-foot thick low permeability compacted soil layer will be constructed on top of the separation geotextile. The layer must be placed and compacted to 95 percent compaction at optimum moisture content or wetter as determined by a standard Proctor test (American Society for Testing and Materials D698) and achieve a hydraulic conductivity no greater than 1×10 -7 cm/sec. The low permeability compacted soil layer will be constructed to the design grades shown in Sheet 8 (Appendix A) and to the specifications outlined in Appendix I. The soil compaction effort will be tested and monitored by a qualified certifying engineer. The 2-foot low permeability compacted soil layer may be replaced by and improved with a 12-inch low permeability compacted soil layer overlain by a GCL, provided that the GCL is compatible with the constituents in the soil gas. The improved layer system would have the following characteristics:

• The product permeability of a typical GCL (for example Bentomat ST) is 5×10 -9 cm/sec maximum, as compared to a 2-foot layer of compacted soil at 1×10 -7 cm/sec maximum.

- Pairing a GCL product with additional 12 inches of clay will provide additional protection for the GCL from the VOCs in the waste soils.
- GCL generally is more cost-effective than clay for sites that do not have low permeability clay available on site
- GCL can be installed faster than compacted clay.
- GCL must be chemically compatible with VOCs found at the site and tested before procurement. Compatibility analysis will consist of strength testing and verification of any change in permeability. Materials cannot diminish in strength or increase in permeability during exposure to site contaminants as per the technical specifications for separation geotextiles. Testing will occur with an initial baseline test, and at subsequent 14-day intervals for 3 months.

2.4.6 Barrier Layer Geomembrane

The barrier geomembrane layer serves as an impermeable layer above the 2-foot low permeability compacted soil layer. Information was gathered during a desktop study to address the compatibility of various geomembranes, a barrier geomembrane will be selected based on the findings of the laboratory compatibility testing and cost comparison. The geomembrane liner materials will be tested before delivery to the site and must meet or exceed the requirements and specifications of this RD. Three acceptable geomembrane products are Seaman 8130 XR-5 Reinforced Geomembrane, Agru 40 mil Microspike LLDPE Geomembrane, and GSE 40 mil Textured LLDPE Geomembrane. Installation will be in accordance with the specifications given in Appendix I. The geomembrane will be tested during installation by the installer and monitored by a qualified certifying engineer in accordance with the specifications. For costing purposes only, the XR-5 reinforced geomembrane was specified (Appendix J).

2.4.7 Double-Sided Geocomposite

A double-sided drainage geocomposite will be installed directly on top of the geomembrane. It will have a 200-mil geonet core of 6 oz/yd2 nonwoven, needle punched geotextiles heat bonded on both sides. The geocomposite will act as the final cap drainage layer, designed to capture surface water that travels through the cover soils and drain it to a control berm or perimeter ditch. The minimum transmissivity of the geocomposite will be 1×10 -4 square meters per second under the appropriate loading conditions. The double sided geocomposite must be installed in accordance the specifications in Appendix I.

2.4.8 Protective Soil Layer

An 18-inch protective soil layer will be installed directly above the geocomposite. The protective soil layer will be free of debris, trash, clay clods, or other deleterious material. No sharp-edged rocks or hard objects that may damage the geomembrane under the geocomposite will be allowed. The material of the protective soil layer must have a maximum particle size of 1½ inches. Low ground pressure equipment will be used for work on the protective soil layer whenever the thickness is less than 24 inches. Roadway fill for transporting material over the final cover must be at least 3 feet thick over the geosynthetic materials at all times to protect the underlying geosynthetic materials. Excessive rutting must be prevented. No part of the earthmoving equipment may contact the underlying geosynthetic components. Protective soil will be placed so as to minimize stress on the underlying geosynthetic components.

The topsoil layer (soil capable of supporting vegetation) will consist of at least 6 inches of soil with pH in the range of 6.0 to 7.5. If suitable soils are not present onsite in sufficient quantity, they will be imported from off-site. The topsoil layer will be placed with low ground-pressure equipment and compacted lightly, as required for access and stability and to support vegetation. The uppermost 2 inches of the layer will be scarified to provide a base for seeding and treated with lime and fertilizer, as required by the DNREC Erosion and Sediment Control Handbook. Erosion protection (such as turf matting) may be required before completion if vegetation is not expected to be completed prior to the winter season.

Additionally, the scope of this work assignment extends beyond construction of the remedial components into the first year of operation and maintenance (O&M). The contractor is expected to prepare an O&M Manual that will be provided by EPA to State personnel following EPA's operation of the remedy.

This SOW and accompanying work breakdown structure (WBS) is provided as a format for the contractor to structure its proposed approach and cost estimate. Use the WBS in cost estimate preparation, and technical and cost tracking and reporting under this work assignment/ task order.

In conducting the work assignment/task order, EPA expects the contractor to propose and implement the most appropriate and cost-effective procedures and methodologies using accepted engineering practices and controls. Throughout the performance of this work assignment/task order, the EPA expects the contractor to be responsible for performing services and providing products at the lowest reasonable cost. If the contractor fails to meet the requirements within the negotiated costs, the government may elect to provide the contractor with additional funds to complete the work assignment/task order without providing any additional fee. If there are changes to the SOW by the government, the government will issue a formal amendment to the SOW and negotiate the cost of the amendment with the contractor to form a new cost estimate.

A summary of the major deliverables and schedule for submittals is in Attachment 1. Submit the major deliverables using the Transmittal of Documents for Acceptance by EPA Form. The EPA Work Assignment Manager (WAM)/Contracting Officer Representative (COR) will track deliverables submitted by the contractor using the Transmittal Register.

Communicate at least weekly with the WAM/COR, either in face-to-face meetings or through conference calls. Document all decisions that are made in meetings and conversations with EPA. Forward this documentation to the COR within five working days of the meeting or conversation.

EPA will provide oversight of contractor activities throughout the RA. EPA review and approval of deliverables is a tool to assist this process and to satisfy, in part, EPA's responsibility to provide effective protection of public health, welfare, and the environment. EPA will review deliverables, including specific deliverables from the subcontractor(s) to the RA contractor, to assess the likelihood that the RA will achieve its remediation goals and that its performance and operations requirements have been met. Acceptance of plans and design-required submittals (i.e., shop drawings, design details) by EPA does not relieve the RA contractor or any subcontractor(s) from the adequacy of their deliverables or their professional responsibilities.

RECORD KEEPING REQUIREMENTS

Maintain all technical and financial records for the RA in accordance with the contract. At the completion of the work assignment/task order, submit an official record of the RA in both compact disk and a hardcopy to the WAM/COR. Provide the deliverables using electronic media.

US EPA PRIMARY CONTACT

The primary contact for this work assignment/task order is:

Brad White (215) 814-3217 1650 Arch Street, mailcode 3HS22 Philadelphia, PA 19103 White.brad@epa.gov

EP-S3-07-05/0276

WA/TASK ORDER COMPLETION DATE AND PROJECT CLOSEOUT

At the completion of the work assignment/task order, perform all necessary project closeout activities as specified in the contract. These activities include closing out any subcontracts, indexing and consolidating project records and files as required above, and providing a technical and financial closeout report to EPA. The goal is to complete all technical activities and closeout activities for this work assignment/task order by **June** 30, 2017.

RA Work Planning

WORK PLAN WBS: 1.1

Prepare and submit a RA work plan that includes a detailed description of implementation activities, performance monitoring, and overall management strategy, including optimization, for the RA. Typical activities involved in preparing the work plan include, but are not limited to, the following:

- Contacting the Work Assignment Manager (WAM)/Contracting Officer Representative (COR) within five calendar days after receipt of the work assignment/task order to schedule the scoping meeting to be held at the U.S. EPA Region 3 office in Philadelphia, PA. Regional personnel will be available to meet with the contractor 20 to 30 calendar days after the initial scoping meeting to discuss and clarify any issues the contractor may have regarding this project. Contact the WAM/COR to schedule this meeting at least five working days before the proposed meeting date.
- Preparing and submitting a final RA work plan within <u>60</u> calendar days after the scoping meeting. The work plan shall include a detailed description of the technical approach for the RA activities in accordance with the RD. Specify the necessary procedures, inspections, deliverables, and schedules. Include a comprehensive implementation management schedule for completion of each major activity and submittal.
- Preparing the estimated cost to complete the work assignment/task order, including subcontractor costs, for
 each element of the SOW; providing a breakdown of the cost by task and subtask levels, in accordance with
 the contract work breakdown structure (WBS).
- Negotiating and preparing a revised work plan, if the contractor fails to meet the Region's minimum standards. Note that EPA does not anticipate a need to re-negotiate with the contractor nor to require the contractor to revise the work plan. Contractor costs associated with the preparation of the revised work plan and cost estimate shall be paid by the government but shall not bear fee.
- Providing conflict of interest disclosure.

SITE-SPECIFIC PLANS WBS: 1.2

Review all existing site-specific plans and prepare, update, and/or maintain plans, as necessary, for RA implementation. Incorporate the plans and procedures received from any subcontractor(s) into the overall site plans. Should the contractor fail to meet the required standards in accordance with the appropriate legal, regulatory, and EPA guidance, prepare revised site-specific plans. (NOTE: In that event, contractor costs associated with the preparation of the revised site-specific plans shall be paid by EPA but shall not bear fee.) Typical plans include, but are not limited to, the following:

- Field Sampling Plan (FSP) in accordance with 40 CFR 300.415(b)(4)(ii).
- Quality Assurance Project Plan (QAPP) in accordance with EPA Requirements for QA Project Plans (QA/R-5). Office of Environmental Information. EPA/240/B-01/003, March 2001.
- Pollution Control and Mitigation Plan

- Sediment and Erosion Control Plan
- Transportation and Disposal Plan
- Site-specific Health and Safety Plan (HSP) that specifies employee training, protective equipment, medical surveillance requirements, standard operating procedures, and a contingency plan in accordance with 29 CFR 1910.120(1)(1) and (1)(2).
- Construction Quality Assurance Plan (note: The CQA is part of the RD; the contractor shall review the plan and determine if any changes or updates are to be made).

Project Management and Reporting

PROJECT MANAGEMENT

WBS: 1.4

Perform activities required to effectively manage the work assignment/task order. These activities typically include, but are not limited to, the following:

- · Monitoring costs and progress.
- Preparing and submitting monthly progress reports that document monthly and cumulative cost, performance status, and technical progress.
- Preparing and submitting monthly invoices in accordance with the level of detail as specified in the contract.
- Manage, track, and report status of site-specific equipment.
- Participating in meetings and preparing and submitting meeting summaries.
- Accommodating any external audit or review mechanism that EPA requires.
- Evaluating existing data, including usability, when directed by EPA.
- Coordinating with local and emergency response teams.
- Reviewing background documents as directed by EPA.
- Attending EPA-held training.

Perform community involvement activities in support of EPA throughout the RA in accordance with the *National Oil and Hazardous Substances Pollution Contingency Plan* (NCP, 40 CFR Part 300) and the *Community Relations in Superfund - A Handbook*, (U.S. EPA, Office of Emergency and Remedial Response, OSWER Directive No. 9230.0-3C, January 1992).

The extent of community involvement activities is expected to be minimal. These tasks include, but are not limited to, the following:

- Providing public meeting and/or open house support.
- Preparing fact sheets, notices and other informational documents.
- · Preparing presentation materials.
- Implementing other community involvement activities as identified by the site-specific CIP or EPA.
- Providing technical support to review Community Involvement deliverables and participate in public meetings.

MANAGEMENT SUPPORT (MS)

WBS: 4

Manage and monitor the subcontract(s) required to implement the RA. Institute procedures, monitor progress, and maintain systems and records to ensure that the work proceeds according to requirements specified in the contract documents. Typical activities include, but are not limited to, the following:

- Providing financial management including review and approval of invoices, subcontract modifications, and
 work assignment/task order amendments to include direct cost of change orders/financial tracking; and
 maintain a code of accounts and/or WBS for cost/schedule reporting purposes.
- Providing cost monitoring including weekly and monthly cost tracking. Analyze progress payments and
 make recommendations including retaining and deviation from projected rates of expenditure.
- Monitoring subcontractor compliance with the Davis-Bacon Act and related requirements.
- Providing engineering support including review of field logs, attending biweekly/weekly/monthly meetings, and providing supplemental support for field change requests, value engineering change and system optimization proposals, non-conformance reports issued by resident engineer, and re-design activities.
- Managing, tracking, and reporting the status of all government-furnished equipment and contractoracquired property in accordance with contract requirements.

RA Subcontract Award

PROCUREMENT OF SUBCONTRACT (PB)

WBS: 3

Solicit, evaluate, select, and award the necessary subcontract(s) to implement the RA under this task. The contractor must adhere to Federal Acquisition Regulation (FAR), EPA Acquisition Regulation (EPAAR), and contract specific subcontracting requirements in procuring subcontractor(s). To the maximum extent practicable, the types of subcontracts procured shall follow performance-based contracting (PBC) methods. The tasks to be performed shall be determined by the contractor's technical approach as detailed in the work plan. These tasks include, but are not limited to, the following:

- Prebid (Pre-solicitation) Activities
 - Duplication and distribution of contract documents
 - Advertising/soliciting of bids
 - Issuing addenda
 - Holding Pre-bid (pre-solicitation) meetings
 - Resolution of bidder (offeror) inquiries
 - Holding On-site visits
 - Compilation of contract documents
 - Readvertise/Resolicit bids/offers and repackage documents if necessary. [NOTE: All costs associated
 with the re-advertisement/resolicitation of subcontract(s) shall be paid by the Government, but shall
 bear no additional fee.]
- Pre-Award/Award Activities.
 - Receipt of bids (offers).
 - Determination of responsive, responsible bidder/s (offeror/s).
 - Bid (offer) tabulation and analysis.
 - Receipt of follow-up items from lowest responsible bidder/s (offeror/s).
 - Review of Equal Employment Opportunities (EEO), Minority Business Entrepreneurs (MBE) requirements, and Small, Disadvantaged Business Subcontracting Plans.
 - Perform reference checks.
 - Request consent from EPA.
 - Award subcontract and issue notice of award.
- · Post-Award Activities.
 - Attend post award meetings/preconstruction conference.
 - Review permits, insurance, bonds, certificates, and documentation required by the specifications.
 - Review and approve subcontractor's measurement and payment schedule.
 - Establish guidelines for payment of items delivered by not yet installed.
 - Review subcontractor activity schedule.
- Submittal review and preparation of Notice to Proceed (NTP).
 - Establish procedures for review of submittals.
 - Review subcontractor submittals.
 - Issue Notice To Proceed.
- Reviewing revisions/addendum to subcontractor submittals (optional).

RA Implementation Management

DETAILED RESIDENT INSPECTION (Resident Engineer) (RI)

WBS: 5

Provide field supervision associated with the monitoring and documentation of the work being done at the site in accordance with the design and all subcontract(s) documents (e.g., drawings, specifications and plans) and ensure the implementation of the remedial action at the site is protective of human health and the environment. Typical activities include, but are not limited to, the following:

- Conducting/attending progress meetings.
- Maintaining field logs and daily diaries.
- Providing advice on what is intended by subcontract documents.
- Preparing sketches to reflect field conditions.

- Checking construction drawings submitted by construction subcontractors for compliance with design concept.
- Preparing reports on inspections.
- Making final inspection and preparing report.
- Monitoring, updating, and reporting construction progress.
- Reviewing and recommending time extensions.
- · Coordinating with Home Office/Management Support.
- Conducting regular Davis-Bacon Act interviews on-site. (The WAM/COR shall be informed regarding scheduling of such interviews so that he/she can be present on site.)
- Reviewing and recommending action on value engineering change proposals.
- · Reviewing and making recommendations for changes.
- Providing advice on need and cost of proposed change orders.
- Providing assistance in prevention and resolution of subcontractor claims.
- Recommending approval or rejection of construction schedules.
- Performing field testing, recommending action on health and safety considerations (e.g., site safety plan), monitoring quality control procedures.

ANALYTICAL SUPPORT AND DATA VALIDATION (AN)

WBS: 6

Schedule, coordinate, track, and oversee sample analyses and validate analytical data. Typical activities include, but are not limited to, the following:

- Collecting, preparing, and shipping environmental samples in accordance with the Field Sampling Plan (FSP). The following types of sampling shall be required:
 - Field screening
 - Ground water sampling
 - Surface and subsurface soil sampling
 - Surface water and sediment sampling
 - Air monitoring and sampling
 - Biota sampling
 - Other types of media sampling and screening
- Developing data quality objectives (DQO) for each sampling event; these DQOs shall be the determinative factor for assessing the success or failure of the sampling.
- Requesting, obtaining, and performing oversight of analytical services in compliance with EPA requirements.
- Coordinating with the EPA Sample Management Office (SMO), the Regional Sample Control Coordinator (RSCC), and/or the Environmental Services Division (ESD) regarding analytical support, data validation, and quality assurance issues.

November 2002

EP-S3-07-05/0276

- Implementing the EPA-approved laboratory quality assurance program that provides oversight of in-house and subcontracted laboratories through periodic performance evaluation sample analyses and/or on-site audits of operations and has a system of corrective actions.
- Providing sample management including chain of custody procedures, information management, sample retention, and 10-year data storage.
- Performing data validation, the process by which the quality of the data, the defensibility of the data, and the chain of custody are verified. Performing data validation in accordance with Regional guidelines.
- Reviewing data for usability for its intended purpose.
- Providing reports on data validation and usability.

CLEANUP VALIDATION (CV)

WBS: 7

Provide quality assurance monitoring and documentation that the work being done at the site is in accordance with the design and all subcontract(s) documents (drawings, specifications and plans). These tasks include, but are not limited to, the following:

- Sampling Perform confirmatory sampling and analysis to include sample collection, shipping, analysis, and validation costs.
- Preparing Cleanup Status Report Development of a report at the request of the WAM/COR that describes the progress of the RA based upon sampling and analytical results.

RA IMPLEMENTATION (SUBPOOL ACTIVITIES) (AI)

WBS: 8

Manage and oversee the RA elements implemented by subcontractor(s) at the site in accordance with the O&M plan, the design, and all subcontract(s) documents (drawings, specifications and plans). Typical activities include, but are not limited to, the following:

- Site-specific preparation: Securing the site and establishing an operations area, including laying out of clean zone, waste/stage handling areas, and decontamination areas if required
- Implementation of the RA in accordance with the O&M plan, the design, and the subcontract plans and specifications.
- Site-specific RA reserve. (change orders) (reserve usually 15% of estimated subcontract cost depending on nature of job) [NOTE: This subtask is for costs only no hours should be reflected under this subtask, only dollars.]

REUSE PLANNING (RV)

WBS: 9

Assist in the review and evaluation of reuse plans and redevelopment plans submitted to ensure long-term protectiveness of the RA and remedy. (No activities are planned under this task).

PROJECT PERFORMANCE (PJ)

WBS: 10

Perform all activities necessary to ensure the RA implemented at the site is in accordance with the design and O&M plan and all subcontractor documents. Typical activities include, but are not limited to, the following:

- Conducting pre start-up check out
 - Reviewing O&M manual.
 - Describing and analyzing potential operating problems.

- Supporting training operation and maintenance of O&M staff, including State personnel.
- Advising on conformity to applicable performance and operations requirements.
- Determining cause of failure and developing corrective action report.
- Reviewing record development, laboratory procedures, process system, safety and emergency systems, and warranty files.
- · Evaluating equipment system performance, witness performance tests, gathering and testing samples.
- For the one-year operational and functional period, operating and providing appropriate upkeep and maintenance of installed response action construction items including the facilities, equipment, and appropriate engineered controls such as fencing for the site in accordance with the O&M Manual and Sampling and Analysis Plan (SAP).
- Operating and providing appropriate upkeep and maintenance of installed response action construction
 items including the facilities, equipment, and appropriate engineered controls such as fencing for the site in
 accordance with the O&M Manual and Sampling and Analysis Plan (SAP) for a time period as specified in
 the work assignment/task order.
- Updating the O&M Manual, as appropriate.
- Conducting trend analyses and optimization studies to improve system efficiency and reduce operation cost
 of RA.

RA Completion

PROJECT COMPLETION AND CLOSEOUT (PC)

WBS: 11

Ascertain project completion and closeout of the subcontract(s) associated with the RA at the site. These tasks include but are not limited to, the following:

- Demobilization of subcontractors.
- Pre-final/Final Activities Consolidation of project needs, pre-final/final inspection and certification, direct final project demobilization and make lockout inspection.
- Final Payment/Punch List Resolution/certification that project is complete according to plans and specifications. May involve trial periods, shakedowns, test or trial runs/burns.
- · Submission of as-built drawings.
- Updating the O&M Manual.
- Training for State and/or contractor employees who will conduct further O&M as required.
- Assisting in transfer of project to the State upon the determination that the project is Operational and Functional (O&F).
- Preparing Remedial Action Report in accordance with Closeout Procedures for National Priorities List Sites OSWER Directive 9320.2-09A-P, January 2000.

WORK ASSIGNMENT/TASK ORDER CLOSEOUT (CO)

WBS: 12

Perform the necessary activities to close out the work assignment/task order in accordance with contract requirements. Typical activities include but are not limited to, the following:

- Packaging and returning documents to the government.
- Duplicating/distribution/storage of files.

Attachment 1 - Summary of Major Submittals for the Remedial Action

| DELIVERABLE | NO. OF COPIES | DUE DATE (calendar days) | EPA REVIEW PERIOD |
|----------------------------------------|------------------|----------------------------------------------------------------|--------------------------------------------------------|
| Monthly Progress Reports | 3 | Monthly and as required in the contract | NA |
| Remedial Action Work Plan | 3 | 45 days after initiation of work assignment/task order (WA) $$ | 21 days after receipt of work plan |
| Public Meeting Support Materials | TBD | One week prior to scheduled meeting | NA |
| Health and Safety Plan | 3 | 30 days after approval of RA work plan | 14 days after receipt of plan |
| Sampling and Analysis Plan | 3 | 30 days after approval of RA work plan | 14 days after receipt of plan |
| Pollution Control and Mitigation Plan | 3 | 30 days after approval of RA work plan | 14 days after receipt of plan |
| Transportation and Disposal Plan | 3 | 30 days after approval of RA work plan | 14 days after receipt of plan |
| Construction Management Plan | 3 | 30 days after approval of RA work plan | 14 days after receipt of plan |
| Sediment and Erosion Control Plan | 3 | 30 days after approval of RA work plan | 14 days after receipt of plan |
| Subcontract Consent Request | e. | 14 days after receipt of bids (offers) | 10 days after receipt of subcontractor consent request |
| Field Documentation | | TBD | NA |
| Data Evaluation/ Cleanup Status Report | 3 | Quarterly as specified by the COR | NA |
| Technical Memorandum | Э | 30 days before final inspection | 21 days after receipt of report |
| Inspection Report | 3 | 21 days after final inspection | NA |
| As-Built Resolution/ Certification | 3 | 30 days after final inspection | NA |
| Remedial Action Report | æ | 30 days after final inspection | 21 days after receipt of report |
| Closeout Report | ю | 30 days after final RA report submitted | 21 days after receipt of report |
| Final Costs | 3 | 90 days after work assignment/task order closeout | NA |

RAC II Model RA SOW

| AMENDME | ENT OF SOLICITATION/MODIFIC | ATION OF CONTRACT | | 1. CONTRACT ID CODE | | PAGE OF PAGES 2 |
|------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------|--------|-----------------------------------------------------------------------|--------------------|----------------------------------|
| 2. AMENDME | NT/MODIFICATION NO. | 3. EFFECTIVE DATE | 4. F | REQUISITION/PURCHASE REQ. NO. | 5. P | ROJECT NO. (If applicable) |
| 0277 | | 06/18/2014 | | | | |
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| | | | | 10B. DATED (SEE ITEM 13) | | |
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| CHECK ONE | A. THIS CHANGE ORDER IS ISSUED ORDER NO. IN ITEM 10A. | PURSUANT TO: (Specify authority) TH | IE CH | IANGES SET FORTH IN ITEM 14 ARE | MADE IN THE | CONTRACT |
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| | r (WA) INFORMATION | | | | |
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| Project Name: <u>Chem-Fab</u> | OU 1 | Contractor: HGL | | WA No.: | 052RICO03DR |
| Activity: RIFS | | EPA Contract No. EP-S3-07- | 05 | Revision No | : 12 (Twelve) |
| Date: <u>06-17-2014</u> | | Contractor Control No | and the latest and th | | n No.: 277 g Officer Use Only) |
| | | | | | |
| New WA (need WP for the WA) Attach SOW including schedule Designate WAM | WA Amendment (need revised WP and/or cost estimate) . Change in LOE or scope by task . Add additional tasks or funds for increased activity | — Partial WP Approval — WP Disapproval — Final WP Approval — Amendment to Final WP Approval . Approve change in LOE, scope, or budget . Approve additional tasks | X Technical D Memorandum Details on scope schedule Minor shift with (no change in \$ Change WAM Set or revise of limit (EL) | e, budget, or nin SOW /LOE) | Incremental Funding . Fund approved WP WA Closeout Notification . Notify contractor to initiate WA closeout task . Revise EL after final invoic Other |
| 3. BUDGET INFORMA | TION | . Approve additional disks | | | |
| Completion WA _X Total Funding Received Previous Total This Action New Total Funding Category:Bulk Activity Code:RIFS 4. WA COMPLETION D 5. EPA COMMENTS: This Work Assignment Ar | Funding S/SID: 03DR DATE Current: 07- | Approved Work Plan LOE (\$)' Term WAs Only 3,976 836,30 0 3,976 836,30 * Includes fees | * 4 0 04 Revised:06-2 | L OE Term WAs | 836,304 0 0 836,304 fees |
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